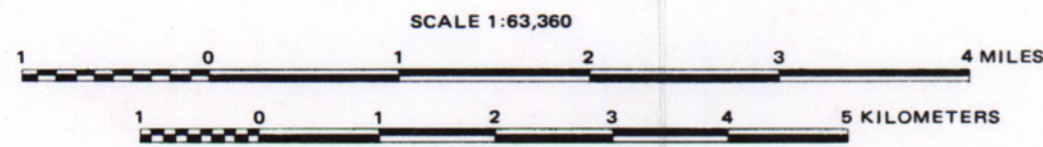
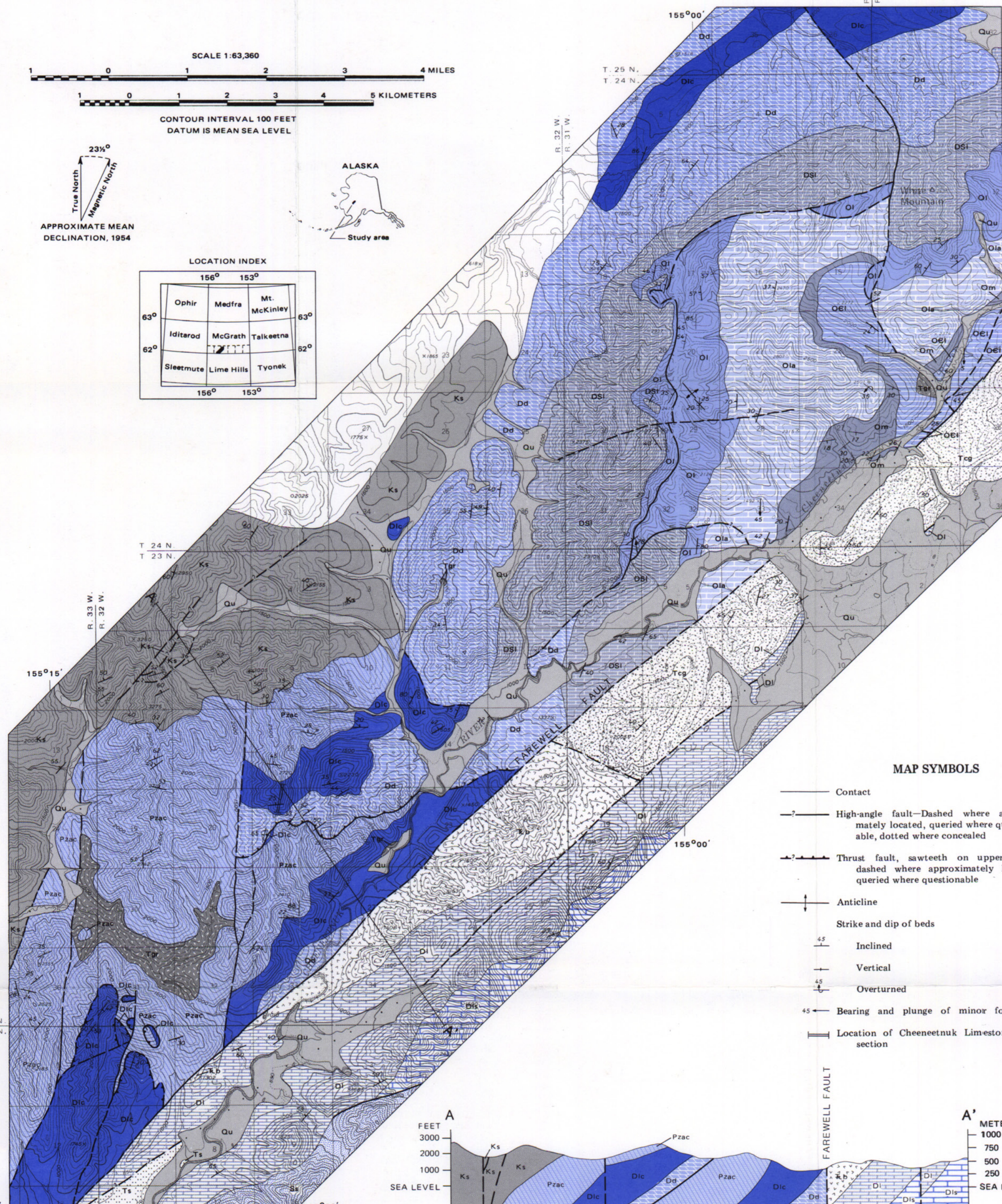
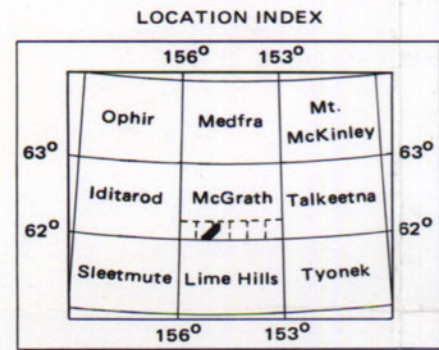
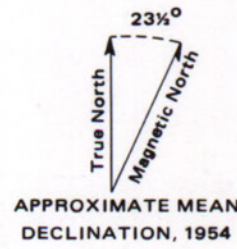


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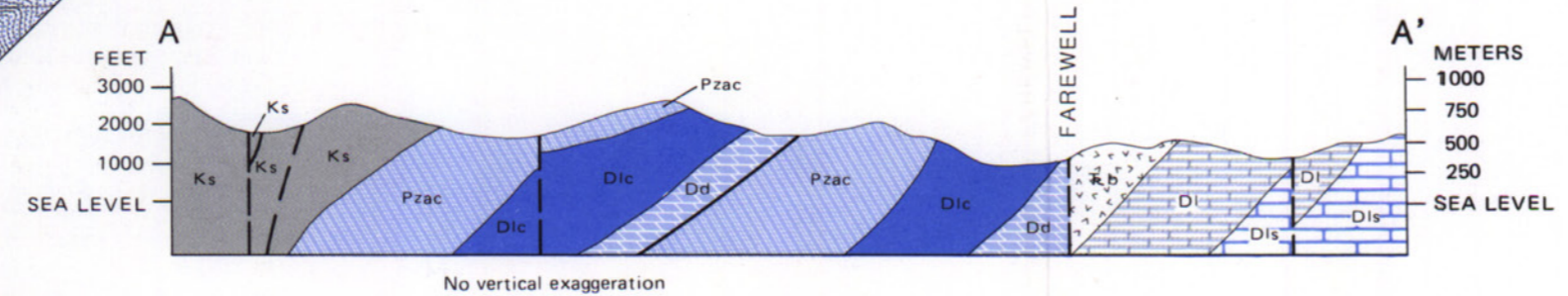


CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL

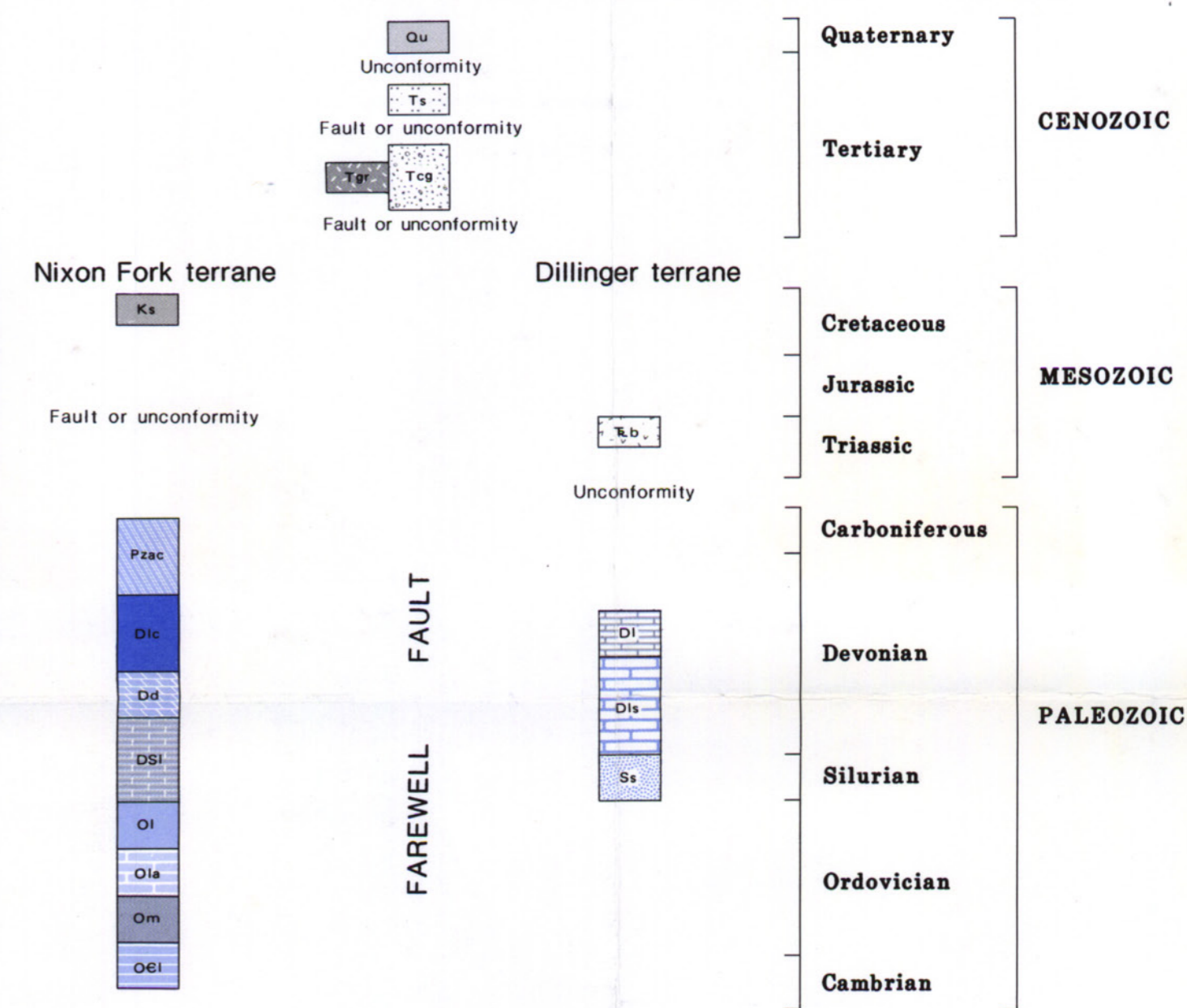


MAP SYMBOLS

- Contact
- - - High-angle fault—Dashed where approximately located, queried where questionable, dotted where concealed
- / - Thrust fault, sawtooth on upper plate; dashed where approximately located, queried where questionable
- ⊕ Anticline
- Strike and dip of beds
- 45° Inclined
- Vertical
- 45° Overturned
- 45° Bearing and plunge of minor fold axis
- Location of Cheeneetuk Limestone type section



CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS
(after Gilbert, 1981)

- Qu SURFICIAL DEPOSITS, UNDIFFERENTIATED—Includes alluvial and colluvial material.
- PRE-HOLOCENE ROCKS SOUTHEAST OF FAREWELL FAULT**
- Ts SANDSTONE—Medium- to thin-bedded, laminated, friable, moderately sorted, medium- to very fine grained carbonaceous micaceous sandstone. Carbonaceous partings between beds and plant remains common, and friable coal beds 0.5-5.0 m (1.6-16 ft) thick occur locally.
- Tcg CONGLOMERATE AND SANDSTONE—Medium- to very thick bedded, light-tan-weathering, poorly sorted, subrounded to rounded granule to pebble quartz conglomerate and poorly sorted, coarse-grained quartz sandstone. Beds are discontinuous, cross-bedded, and contain carbonaceous fragments and partings. Coarse-grained sandstone is interbedded with beds of brown, fine-grained sandstone and siltstone and dark-gray carbonaceous shale 5-20 m (16-66 ft) thick. Limestone clasts become more abundant in lower part of unit.
- Jb PILLOW BASALT—Dark-green pillow basalt interbedded with minor discontinuous beds of dark-brown, gray, and white argillite and chert. Radiolaria identified suggest Triassic age.
- Dlc LIMESTONE—Very thick bedded, dark-gray limestone. Preliminary identification of corals, brachiopods, and foraminifera suggests Late Devonian age.
- Dls LIMESTONE, SANDSTONE, AND SILTSTONE—Moderately folded, thick-bedded, dark-gray laminated limestone, micaceous sandstone, and siltstone. Stratigraphic position indicates Devonian age.
- Ss MICACEOUS SANDSTONE—Brown-weathering, gray, medium- to fine-grained, micaceous calc-sandstone and minor very thick bedded, dark-gray limestone. Graptolites indicate Silurian age.
- PRE-HOLOCENE ROCKS NORTHWEST OF FAREWELL FAULT**
- Tgr GRANITE—Medium- to coarse-grained, equigranular biotite granite that yields potassium-argon age of 39.8 ± 1.2 m.y. (Gilbert, 1981, p. 2).
- Ks SILTSTONE AND SANDSTONE—Predominantly very well indurated, laminated, gray siltstone and light-tan, very fine to fine-grained quartz sandstone.
- Pzac ARGILLITE AND CHERT—Very well indurated, dark-gray argillite and dark-gray and white banded argillaceous chert.
- Dlc CHEENEETUK LIMESTONE—Well-bedded, dark-gray, argillaceous micritic limestone. Abundant brachiopods, gastropods, trilobites, corals, and conodonts indicate Middle and possibly Early Devonian age.
- Dd DOLOMITE—Very thick bedded, gray, pink, and white, finely laminated, very coarse to fine-grained dolomite. Stratigraphic position indicates Early Devonian age.
- DSI ALGAL LIMESTONE—Discontinuous but generally thick-bedded, buff to white stromatoporoidal limestone with subordinate beds of laminated limestone. Preliminary identification of sparse brachiopod and coral faunas indicates Silurian age.
- OI LIMESTONE AND ARGILLITE—Thin- to thick-bedded, cherty laminated limestone, algal limestone, limestone breccia, and black argillite. Preliminary identification of abundant brachiopod and conodont faunas indicates Late Ordovician age.
- Ola ARGILLACEOUS LIMESTONE AND ARGILLITE—Heterogeneous unit of very thin to thin-bedded, cross-bedded argillaceous limestone, thin-bedded laminated limestone, thin- to thick-bedded stromatoporoidal limestone, and thin- to thick-bedded, orange-weathering siltstone and calcarenite. Age assigned to Ordovician because of stratigraphic relationship to limestone and argillite (OI) unit.
- Om BANDED MUDSTONE—Very thin to thick-bedded, dark-gray lime mudstone with flattened lime-mud concretions and very thin bedded mudstone and lime mud exhibiting sedimentary bounding structures. Age uncertain, but assigned to Ordovician because of stratigraphic position.
- OeI OOLITIC LIMESTONE AND DOLOMITE—Thick-bedded, oolitic-pelletoidal limestone and very thick bedded, white, oolitic-pelletoidal dolomite. May overlie thin- to thick-bedded, gray laminated limestone in slivers along Farewell fault. Age uncertain.

Base from U.S. Geological Survey McGrath A-4 and A-5 (1954) Quadrangles, Alaska.

Geology by W.G. Gilbert, 1977-79; assisted by Christopher Nye (1977), G.M. Laird (1978-79), and V.M. Ferrell (1979). Cartography by G.M. Laird.

GEOLOGY OF THE WHITE MOUNTAIN-CHEENEETNUK RIVER AREA, ALASKA

By
R. B. Blodgett and W. G. Gilbert
1983

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