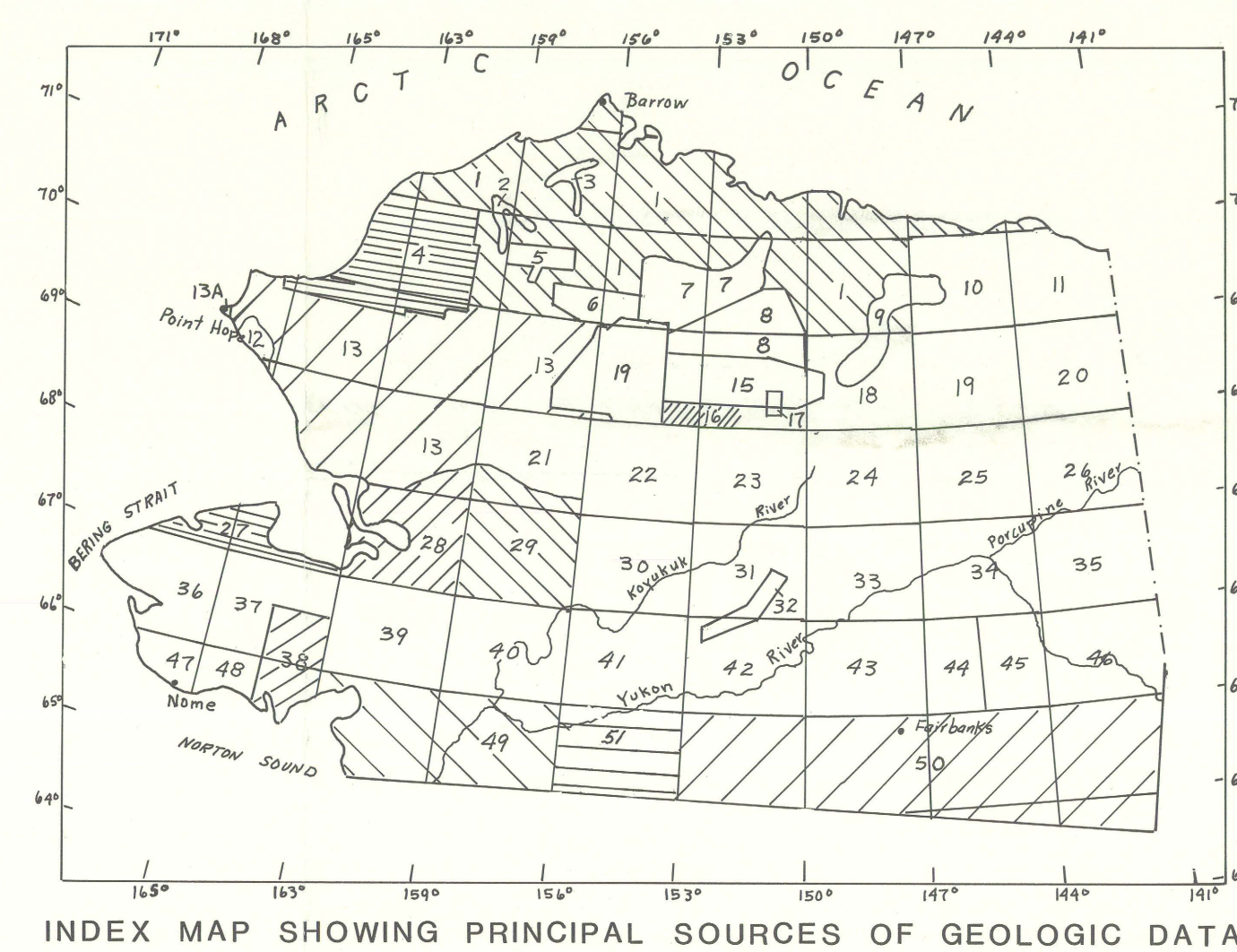


The map shows the North Pacific Ocean with latitude lines from 40°N to 50°N and longitude lines from 150°W to 160°W. The study area is defined by a dashed line. Within this area, four specific regions are highlighted with solid lines and labeled: MF-611 (central), MF-612 (east), MF-674 (southwest), and MF-673 (southeast). A scale bar at the bottom indicates distances of 0, 50, and 100 miles. A north arrow is located in the top right corner.

INDEX MAP OF ALASKA SHOWING OTHER PRELIMINARY
GEOLOGIC MAPS IN THIS SERIES (SCALE 1:1,000,000)



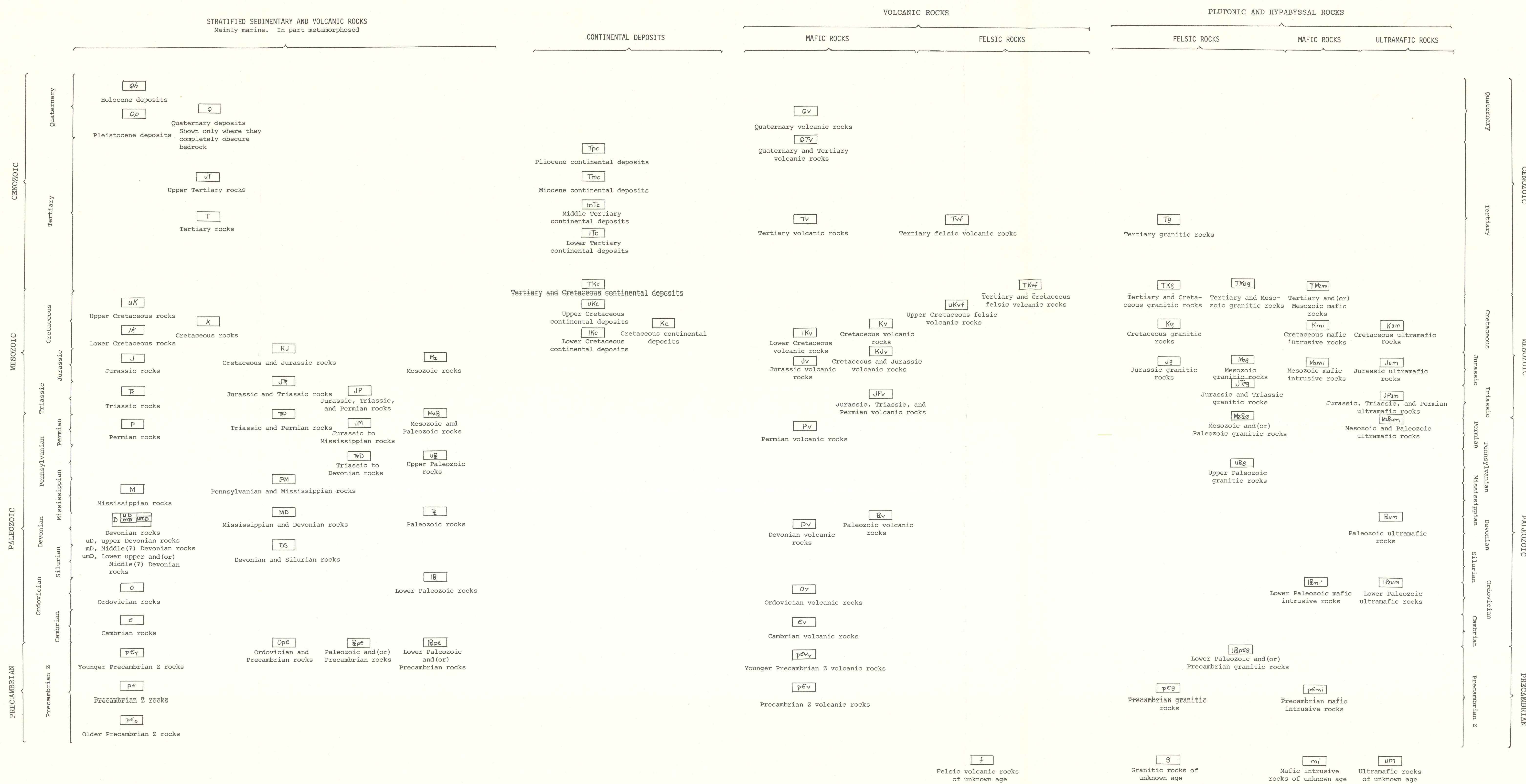
SOURCES OF GEOLOGIC DATA

(Unless otherwise indicated, all publications are those of the U.S. Geological Survey)

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39. Open-file map 537, 1:250,000, 1972.
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51. Misc. Field Studies Map MF-612, 1:1,000,000, 1974.
52. Chapman, R. M., and Patton, W. M., Jr., unpublished compilation, 1976.

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MF-78
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DESCRIPTION OF MAP UNITS

	DEVONIAN ROCKS.—Phyllite, hornfels, graywacke, and sandstone and shale on the Seward Peninsula				[Kc] CRETACEOUS CONTINENTAL DEPOSITS.—Limestone conglomerate and interbedded shale, clay, silt, and bentonite on the Arctic Coastal Plain (Nisakong Group of the Chandler Formation of the Narsahuk Group and the Prince Creek Formation of the Coville Group); shale and siltstone within the Yukon-Koyukuk basin; and pebble conglomerate around margins of the basin
[Wb]	UPPER DEVONIAN ROCKS.—Consists of a classic sequence of shale, sandstone, chert, quartz-pebble conglomerate, quartzite in the eastern and central Brooks Range, and a carbonate sequence of limestone and dolomite in the western Brooks Range. Includes the Hunt Fork Shale and Kanayut Conglomerate, both in the Endicott Group, in the Philip Smith and Endicott Mountains; Hunt Fork Shale in the southern De Long Mountains; the Ugururuk Formation in the central and western De Long Mountains; and the Eli Limestone in the Baird Mountains				[Kc] CRETACEOUS CONTINENTAL DEPOSITS.—Limestone conglomerate with minor interbeds of limestone, graywacke, and thin coal seams
[Umh]	LOWER UPPER AND/OR UPPER MIDDLE(?) DEVONIAN ROCKS.—Conglomerate, graywacke, chloritic phyllite, calcareous shale and sandstone, siltstone, and minor limestone				[Kc] LOWER CRETACEOUS CONTINENTAL DEPOSITS.—Shale and claystone, siltstone, sandstone, conglomerate, caly shale and coal, ironstone, and bentonite. Includes Corwin Formation of Narsahuk Group in western part of Arctic Coastal Plain and Kilikil Group of Chandler Formation of Narsahuk Group in central part
[Nb]	MIDDLE(?) DEVONIAN ROCKS.—Limestone and dolomite of the Nanook Limestone in the Shublik Mountains				VOLCANIC ROCKS MAFIC ROCKS
[Ds]	DEVONIAN AND SILURIAN ROCKS.—Includes the Katakturnuk Dolomite in the Sadlerochit Mountains, limestone, dolomite, marble, and interbedded shale of the Skagit Limestone in the Brooks Range				[Qq] QUATERNARY VOLCANIC ROCKS.—Tholeiitic and alkali olivine basalt on the Seward Peninsula
[R]	LOWER PALEOZOIC ROCKS.—Phyllite, slate, schist, graywacke, quartzite along north edge of Yukon-Koyukuk basin; limestone, chert, shale, sandstone, and mudstone northeast of Unley Hot Spring; and along Yukon River at east edge of nap area where some rocks of Mississippian age are included; and chert and phyllite in northeast part of nap area				[Qrtv] QUATERNARY AND TERTIARY VOLCANIC ROCKS.—Basalt and andesite and pyroclastics with some intercalated gravel and conglomerate on Seward Peninsula and olivine basalt in area to the east of the peninsula
[Q]	ORDOVICIAN ROCKS.—Limestone, dolomitic limestone, argillaceous limestone, and subordinate shale on the Seward Peninsula				[Tv] TERTIARY VOLCANIC ROCKS.—Andesitic and basaltic lava, breccia, and tuff
[Qsd]	ORDOVICIAN, CAMBRIAN, AND PRECAMBRIAN ROCKS.—Phyllite, sandstone, siltstone, limestone, chert, and quartzite in the White Mountains area in the southeast part of the nap and limestone, argillaceous limestone, and dolomitic argillaceous limestone of Ordovician and Precambrian age on the Seward Peninsula				[Kv] CRETACEOUS VOLCANIC ROCKS.—Volcaniclastic rocks and porphyritic pyroxene andesite flows and hyabysal rocks
[Rsd]	PALEOZOIC AND/OR PRECAMBRIAN ROCKS.—Metasedimentary and metaigneous rocks, including schist and gneiss primarily of the greenschist and amphibolite facies in the Yukon-Tanana Upland. Formerly included in the Birch Creek Schist				[Kw] LOWER CRETACEOUS VOLCANIC ROCKS.—Porphyritic andesite and basalt
[C]	CAMBRIAN ROCKS.—Calcareous siltstone and sandstone, phyllite, and sandstone in the northeast Brooks Range				[Kr] CRETACEOUS AND JURASSIC VOLCANIC ROCKS.—Porphyritic pyroxene andesite and trachandesite flows, andesitic crystal and lithic tufts, tuffaceous volcanic graywacke, andesite breccia, agglomerate, and conglomerate
[Bsp]	LOWER PALEOZOIC AND/OR PRECAMBRIAN ROCKS.—Sandstone, limestone, shale, chert, phyllite, argillite, and quartzite of the Neruokpak Formation in the northeast Brooks Range; quartz-nice schist, mafic greenschist, calcareous schist, chlorite-quartz schist, phyllite, and quartzite in central part of nap area; and schist and quartzite of the Birch Creek Schist of former usage in Yukon-Tanana Upland				[Jdv] JURASSIC VOLCANIC ROCKS.—Basalt, andesite, and gabbro in lava, breccia and intrusive rocks. Includes some rock of Permian or Jurassic age
[Yf]	YOUNGER PRECAMBRIAN Z ROCKS.—Schistose, argillaceous, dolomitic limestone with local tactite				[Jpv] JURASSIC, TRIASSIC, AND PERMIAN VOLCANIC ROCKS.—Igneous complex of mafic volcanic and intrusive rocks. Complex is composed of basalt, diabase, diorite, gabbro, rhyodiorite, chert, peridotite, and dunite. In places includes flows, tuffs, breccias, and interbedded sediments. Includes Rampart Group and Circle Volcanics
[Pc]	PRECAMBRIAN Z ROCKS.—Stilletite, phyllite, graywacke, quartz schist, and graphitic schist of lake of the York region on the Seward Peninsula; quartz wacke, semi-schist, phyllite, and argillite of the Neruokpak Formation in the north-east Brooks Range; phyllite, slate, and siltstone near Salome in the east-central part of the area; and limestone, dolomite, sandstone, shale, and basalt of the Tindir Group north of the Tindira fault				[Pv] PERMIAN VOLCANIC ROCKS.—Mafic volcanic and hyabysal rocks on the Seward Peninsula
[Mc]	OLDER PRECAMBRIAN Z ROCKS.—Schist, gneiss, and migmatitic and metamorphic rocks on the Seward Peninsula. Includes some rocks equivalent to slate of the York region in the Kigluak and Bendeleben Mountains				[Rk] PALEOZOIC VOLCANIC ROCKS.—Greensstone and minor quartzite, chert, and phyllite in the southeast part of the nap area
					[Dn] DEVONIAN VOLCANIC ROCKS.—Northwest of Chandalar, includes hornblende diorite, pyroxenite sills, and andesitic flows. In the southeast part of the nap area, includes spilitic basalt and lapilli tuff with interbedded dolomite, limestone, and shale of the Woodchooper Volcanics
					[Ov] ORDOVICIAN VOLCANIC ROCKS.—Andesitic and basaltic volcanic conglomerate inter-layered with phyllite and intruded by gabbro and diorite
					[Ev] CAMBRIAN VOLCANIC ROCKS.—Mafic vesicular flows, basaltic tuff, agglomerate, and volcanic conglomerate, and limestone interbeds
					[Ysv] YOUNGER PRECAMBRIAN Z VOLCANIC ROCKS.—Felsophatic chloritic schist
					[Pst] PRECAMBRIAN Z VOLCANIC ROCKS.—Chloritic schists; locally blueschists or retrograded blueschists, with subordinate limestone
					FELSIC ROCKS

CONTINENTAL DEPOSITS

[Tc]	PLEISTOCENE CONTINENTAL DEPOSITS.—Pebble to boulder conglomerate and coarse sandstone, with interbedded mudstone, claystone, and local thin lignite beds. Includes Nenana Gravel	[TcQ] TERTIARY AND CRETACEOUS FELSIC VOLCANIC ROCKS.—Rhyolite, light-colored porphyritic flows, breccia, conglomerate, and tuff of acidic and intermediate composition
[Tmc]	MIOCENE CONTINENTAL DEPOSITS.—Sandstone, siltstone, conglomerate, claystone, and coal beds	[McQ] UPPER CRETACEOUS FELSIC VOLCANIC ROCKS.—Porphyritic latite, quartz latite and trachyte flows, quartz latite porphyry flows and hypabyssal intrusive rocks, and crystal lithic tufts
[TmC]	MIDDLE TERTIARY CONTINENTAL DEPOSITS.—Sandstone, siltstone, claystone, and coal beds. Includes Healy Creek Formation (Oligocene and Miocene) in the northern part of the central Alaska Range	[C] FELSIC VOLCANIC ROCKS OF UNKNOWN AGE.—Rhyolite
[LTc]	LOWER TERTIARY CONTINENTAL DEPOSITS.—Coal-bearing sequence and cyclic bedded clay and silt. Includes lower (Paleocene through Oligocene) part of the Sagavanirktok Formation. In the Yukon Valley, includes interbedded conglomerate, grit, and sandstone with lignite, shale, and lignite	PLUTONIC AND HYPABYSSAL ROCKS FELSIC ROCKS
[TQc]	TERTIARY AND CRETACEOUS CONTINENTAL DEPOSITS.—Sandstone, mudstone, conglomerate, and thin lignitic coal beds	[Tg] TERTIARY GRANITIC ROCKS.—Granitic rocks of acidic and intermediate composition [Tks] TERTIARY AND CRETACEOUS GRANULITE ROCKS.—Granite and quartz diorite

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