

EXPLANATION

Asbestos
 Soapstone
 Jade
 Ni, Ag, Au, Cu, Pb, Zn, Mn
 Hg, Co, PGE, Tl

Dots on polygons indicate presence of indicated commodities at specified locations, which, are described in Table 1. In congested areas, some locations are shown by solid circles and the appropriate polygons are connected to those locations by leaders. This symbology refers only to mineral commodities that are clearly associated with or derived from ophiolitic rocks or mafic and ultramafic rocks of uncertain affinity. Commodities not clearly associated with or derived from ophiolitic or other mafic and ultramafic rocks are contained in parentheses, under the heading "commodities" in table 1.
 Location described in table 1. Unless indicated by other symbols, no commodity is clearly associated with ophiolitic rocks or other mafic and ultramafic rocks.
 Metallogenic province boundary
 Strike-slip fault

MAP UNITS

NORTHERN AND WESTERN ALASKA

ONW
TERRANE CONTAINING OPHIOLITIC COMPLEXES OF NORTHERN AND WESTERN ALASKA
 Black pattern represents allochthonous alpine-type mafic-ultramafic complexes composed of a lower mantle suite of serpentinitized harzburgite and dunite and an upper plume suite of layered ultramafic rocks and layered and nonlayered gabbro. K-Ar ages range mostly from Middle to Late Jurassic.
 Outlined white areas represent an intricate assemblage of pillow-basalt, radiolarian chert, gabbro, argillite, and graywacke with prehnite-pumpellyite metamorphic facies assemblages. Presence of glauconite near base indicates local high-pressure metamorphism. Fossil ages range from Devonian to Early Jurassic.

SOUTHWESTERN ALASKA

OSW
TERRANE CONTAINING OPHIOLITIC COMPLEXES OF SOUTHWESTERN ALASKA
 Black pattern represents allochthonous alpine mafic-ultramafic complexes composed of nonlayered gabbro and lesser amounts of harzburgite and dunite. Uncertain but probable Mesozoic age.
 Outlined white areas represent intricate assemblage of pillow-basalt, radiolarian chert, gabbro, argillite, graywacke, and carbonate rocks. Prehnite-pumpellyite and locally transitional blueschist-greenschist metamorphic facies. Fossil ages range from Devonian to Jurassic.

SOUTH-CENTRAL ALASKA

OBR
TERRANE CONTAINING OPHIOLITIC COMPLEXES OF SOUTH-CENTRAL ALASKA
 Black pattern represents ultramafic rocks including dunite, websterite, clinopyroxenite, websterite, and harzburgite.
 Outlined white areas represent gabbro complexes including gabbronorite, leucogabbro, and ferrogabbro. K-Ar ages range from Early to Middle Jurassic.

EAST-CENTRAL ALASKA

OYT
TERRANE CONTAINING OPHIOLITIC COMPLEXES OF EAST-CENTRAL ALASKA
 Black pattern represents allochthonous alpine-type mafic-ultramafic complexes composed of serpentinitized harzburgite and dunite, sparse layered gabbro, and coarse nonlayered gabbro. Ages is uncertain.
 Outlined white areas represent assemblages of pillow-basalt, basaltic tuff, radiolarian chert, argillite, graywacke, conglomerate, and limestone. Prehnite-pumpellyite metamorphic facies. Fossils of Mississippian, Early Permian, and Late Triassic age.

MAFIC-ULTRAMAFIC COMPLEXES OF UNCERTAIN BUT POSSIBLE OPHIOLITIC AFFINITIES

OUN
 Include small mafic-ultramafic bodies along Denali-Farewell-Togiak fault system in eastern and central Alaska Range and between Fairbanks and the Yukon River. Ages and structural setting of bodies poorly known.

Base map and map unit descriptions adapted from *Geologic Map of Chukotka and Associated Yukon-Koyuk Basin and Metamorphic Terranes of Alaska*, U.S. Geological Survey Open-File Report 92-20A, by W.W. Patton, Jr., J.M. Murphy, L.E. Burns, S.W. Nelson, and S.E. Box.

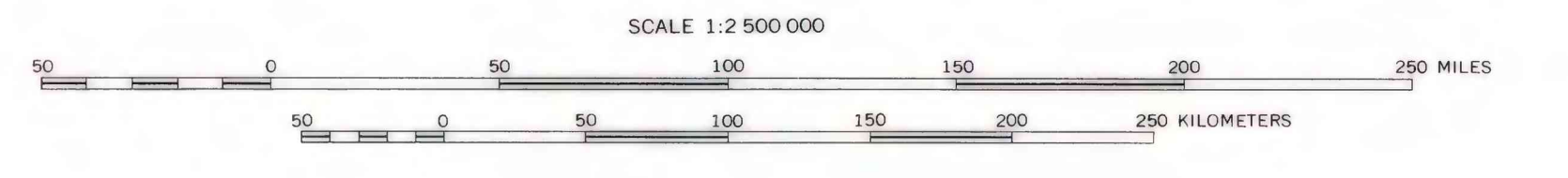


Figure 1. Ophiolitic and other mafic-ultramafic metallogenic provinces in Alaska (west of 141st Meridian)

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.