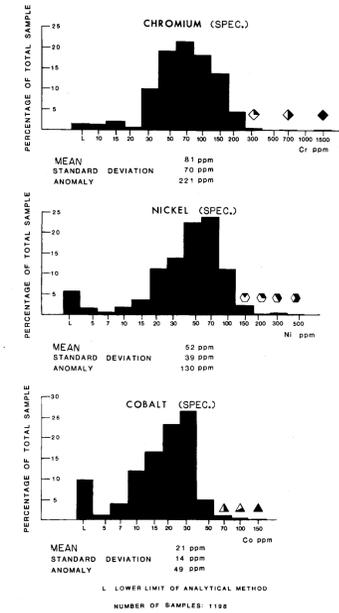




EXPLANATION OF ANOMALY SYMBOLS



Chromium

Chromium was analyzed by the emission spectrographic method. The threshold value for an anomaly used in this report is two standard deviations above the mean, which for chromium is 221 parts per million (ppm). However, there are over 50 samples in the analytical interval from 180 to 260 ppm, reported as 200 ppm. (For discussion of analytical intervals, see Ellersieck, 1978b). Since most of the samples in this interval do not appear to have a close relationship to mafic or ultramafic rocks or potential chromite occurrences, only the nine samples with 300 ppm or more of chromium are shown on this map as anomalies.

The highest chromium values are in streams draining ultramafic rocks (map unit Ju) east of the Jade Mountains.

Nickel

Nickel was analyzed by the emission spectrographic method. The highest nickel values, 300 and 500 ppm, are in the samples which also had the highest chromium values, in streams draining ultramafic rocks of map unit Ju. Nickel values of 150 to 300 ppm are found near black phyllites of map units Db and Pzbs, especially where there are anomalies of other elements such as cobalt, lead, zinc, copper, and manganese. Nickel values of 150 ppm are spread throughout the eastern schist belt, and occur in two clusters in the western schist belt. These anomalies are associated with anomalies of cobalt, scandium, yttrium, and lanthanum. There are also nickel anomalies in the Endicott Mountains, in clastic sediments of the Endicott group (map unit De). Other stream-sediment anomalies common in this area are iron, titanium, boron, and vanadium.

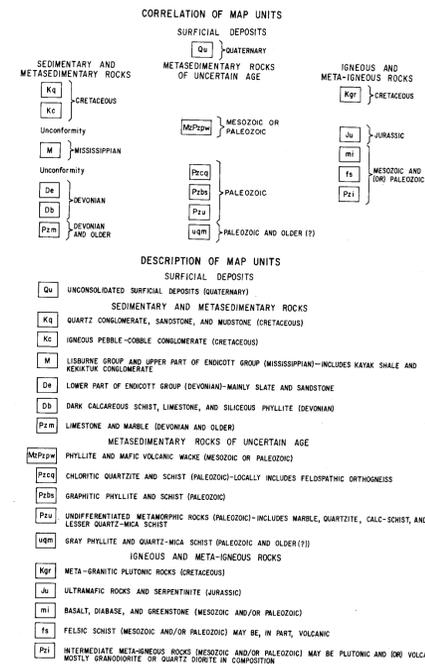
Cobalt

Cobalt anomalies are closely linked to nickel anomalies. Most cobalt anomalies are in the eastern schist belt. Another area with cobalt anomalies is near the black phyllites of map units Db and Pzbs near the eastern quadrangle boundary, where cobalt is associated with anomalies of nickel, lead, zinc, molybdenum, vanadium, and manganese.

REFERENCES

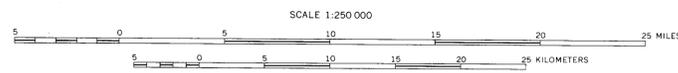
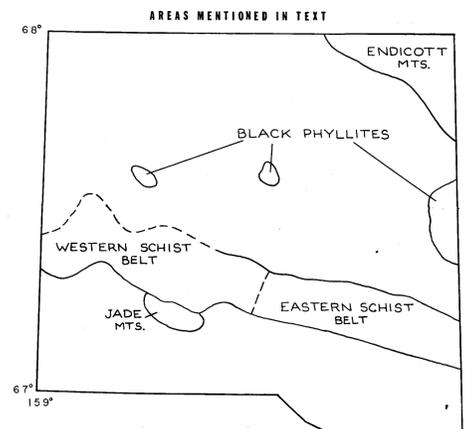
- Ellersieck, Inyo, 1978a, Map showing stream-sediment geochemical sample locations, Ambler River quadrangle, Alaska: U. S. Geological Survey Open-File Report 78-120 B, scale 1:250,000, 1 sheet.
- Ellersieck, Inyo, 1978b, Analytical results for stream-sediment geochemical samples, Ambler River quadrangle, Alaska: U. S. Geological Survey Open-File Report 78-120 C, 6 sheets.

EXPLANATION FOR GENERALIZED GEOLOGIC MAP



Generalized geologic map compiled by

C. F. MAYFIELD



BASE BY U.S. GEOLOGICAL SURVEY, 1956

MAP SHOWING CHROMIUM, NICKEL, AND COBALT STREAM-SEDIMENT
GEOCHEMICAL ANOMALIES, AMBLER RIVER QUADRANGLE, ALASKA

BY INYO ELLERSIECK
1978

Background information to this folio is published as U. S. Geological Survey Circular 793, available free of charge from the U. S. Geological Survey, Reston, Va. 22092.