

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
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GEOCHEMICAL ANALYSES OF STREAM-SEDIMENT AND
SOIL SAMPLES FROM AMBLER RIVER A-4, A-5, B-4,
B-5, C-4, and C-5 QUADRANGLES, ALASKA
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Introduction and Procedures

During 1972 and 1973, stream sediment and soil samples were collected for geochemical analysis in the Ambler River A-4, A-5, B-4, B-5, C-4, and C-5 quadrangles, Alaska. Samples were collected by J.T. Larson, J.M. Zdepski, R.E. Garland, G.H. Pessel, I.L. Tailleux, and W.P. Brosge. Atomic absorption analyses were performed by T.C. Tribble and W.W. McClintock of the DGGs and the emission spectrographic analyses were performed in part by the DGGs and the rest by the U.S. Geological Survey.

Stream sediment samples were taken to include the finer fractions of sand and silt in the active parts of the streams and small tributaries. Every effort was made to take samples from areas where the results would not be obscured by the presence of large amounts of glacial derived material, which is common throughout much of the area. Organic material was excluded where possible.

KEY TO DATA SHEETS

1. The samples have been arranged into three classifications: stream sediment, rock and soil samples.

2. Semiquantitative emission spectrographic values are reported in parts per million (ppm) except values for iron (Fe) magnesium (Mg), and calcium (Ca) which are reported in percent (%). Titanium (Ti) is reported in parts per million except that values in excess of 10,000 ppm are reported in percent.

The data is reported as geometric mid-points (1.0, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, . . . etc.) of geometric intervals having limits (1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, . . . etc.). For example, a reported value of 1.0 is between the limits 0.83 and 1.2.

Under the columns Atomic Absorption Spectrophotometry and Semiquantitative Emission Spectrography, NA means not analyzed and L

means not detected at the specified limit of detection.

Backgrounds and thresholds are computed using standard techniques as discussed in Lepeltier, Claude, 1969, A SIMPLIFIED TREATMENT OF GEOCHEMICAL DATA BY GRAPHICAL REPRESENTATION; Econ. Geol., v. 64, no. 5, p. 538-550.

3. Abbreviations of rock types in sample vicinity, including bed-rock and float:

DOLO - dolomite
GNST - greenstone
GR - granite
MARB - marble
PHYL - phyllite
QMS - quartz-micz schist
SERP - serpentinite
VQTZ - vein quartz
WCKE - wacke