

DISCUSSION

This map shows the locations of 1,218 stream-sediment samples collected by the Alaska Division of Geological and Geophysical Surveys and the United States Geological Survey. A map number has been assigned to each sample according to its position in the drainage network, as diagrammed below. In places where samples are very close together, or where duplicate samples were taken, the same map number may refer to two or more samples. Some numbers have not been used. Geochemical analyses are listed in this folio (Ellersieck, 1978) in order of map number.

Stream-sediment samples from the Cosmos Hills (Fritts, 1969 and 1970; regions IA and IB on index map below) are not included in this compilation. They represent a relatively intensive sampling in a few drainages, rather than a uniform reconnaissance as in the rest of the quadrangle. Median values for many elements reported by Fritts are considerably higher than values from other areas in the quadrangle.

The average density of samples in regions II through V is on the order of one sample per nine km². This is a relatively sparse coverage. For example, 28 percent of the 58 reported occurrences of metallic minerals outside the Cosmos Hills (Mayfield and Grybeck, 1978) do not have a stream-sediment sample within five km downstream. Therefore, it is probable that at least 28 percent of the undiscovered occurrences have not been sampled either.

REFERENCES

Ellersieck, Inyo, 1978, Analytical results for stream-sediment geochemical samples, Ambler River quadrangle, Alaska: U. S. Geological Survey Open-File Report 78-120 C, 6 sheets.

Fritts, C. E., 1969, Geology and geochemistry in the southeastern part of the Cosmos Hills, Shugnak D-2 quadrangle, Alaska: Alaska Division of Mines and Geology, Geology Report 37, 35 pages.

Fritts, C. E., 1970, Geology and geochemistry of the Cosmos Hills, Ambler River and Shugnak quadrangles, Alaska: Alaska Division of Mines and Geology, Geology Report 39, 69 pages.

Garland, R. E., Pessel, G. H., Tribble, T. C., and McClintock, W. W., 1973, Geochemical analysis of stream sediment samples from the Ambler River A-1, A-2, A-3, B-1, B-2, B-3, C-1, C-2, and C-3 quadrangles, Alaska: Alaska Division of Geological and Geophysical Surveys Open-File Report no. 39, scale 1:63,360, 4 sheets.

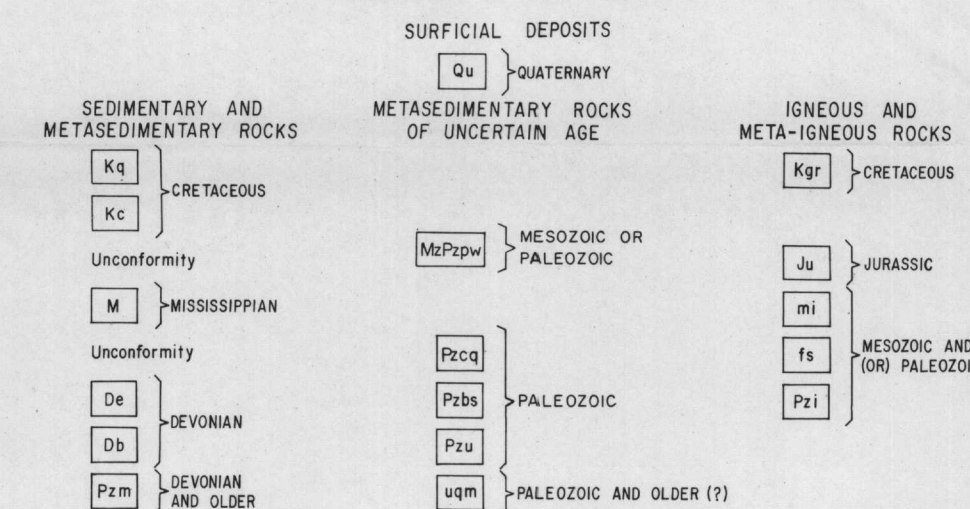
Garland, R. E., Pessel, G. H., Tribble, T. C., and McClintock, W. W., 1975, Geochemical analysis of stream-sediment and soil samples from Ambler River A-4, A-5, B-4, B-5, C-4, and C-5 quadrangles, Alaska: Alaska Division of Geological and Geophysical Surveys Open-File Report no. 39, scale 1:63,360, 2 sheets.

Mayfield, C. F., and Grybeck, Donald, 1978, Mineral occurrences and resources map of the Ambler River quadrangle, Alaska: U. S. Geological Survey open-file map 78-120 I, scale 1:250,000, 1 sheet.

Pessel, G. H., 1976, Geochemistry of stream-sediment samples in southwestern Ambler River quadrangle, Alaska: Alaska Division of Geological and Geophysical Surveys Open-File Report number 71, scale 1:200,000, 5 sheets.

EXPLANATION FOR GENERALIZED GEOLOGIC MAP

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qu UNCONSOLIDATED SURFICIAL DEPOSITS (QUATERNARY)
- Ka QUARTZ CONGLOMERATE, SANDSTONE, AND MUDSTONE (CRETACEOUS)
- Kc IGNEOUS PEBBLE-COBBLE CONGLOMERATE (CRETACEOUS)
- M LISBURNE GROUP AND UPPER PART OF ENDICOTT GROUP (MISSISSIPPIAN)—INCLUDES KATAK SHALE AND KEKATUK CONGLOMERATE
- Ds LOWER PART OF ENDICOTT GROUP (DEVONIAN)—MAINLY SLATE AND SANDSTONE
- Pz DARK CALCAREOUS SCHIST, LIMESTONE, AND SILICEOUS PHYLLITE (DEVONIAN)
- Pm LIMESTONE AND MARBLE (DEVONIAN AND OLDER)
- MPZM PHYLLITE AND MAFIC VOLCANIC WACKE (MESOZOIC OR PALEOZOIC)
- Pzsa CHLORITIC QUARTZITE AND SCHIST (PALEOZOIC)—LOCALLY INCLUDES FELDSPATHIC ORTHOQUARTZ
- Pzsa Graphitic phyllite and schist (PALEOZOIC)
- Pzsa UNDIFFERENTIATED METAMORPHIC ROCKS (PALEOZOIC)—INCLUDES MARBLE, QUARTZITE, CALC-SCHIST, AND LESSER QUARTZ-WEA SCHIST
- Uem GRAY PHYLLITE AND QUARTZ-WEA SCHIST (PALEOZOIC AND OLDER (?))
- Kqf IGNEOUS AND META-IGNEOUS ROCKS
- Kqf META-GRANITIC PLUTONIC ROCKS (CRETACEOUS)
- Jn ULTRAMAFIC ROCKS AND SERPENTINITE (JURASSIC)
- mi BASALT, DIABASE, AND GRENSTONE (MESOZOIC AND/OR PALEOZOIC)
- fs FELSIC SCHIST (MESOZOIC AND/OR PALEOZOIC) MAY BE, IN PART, VOLCANIC
- Pzi INTERMEDIATE META-IGNEOUS ROCKS (MESOZOIC AND/OR PALEOZOIC) MAY BE PLUTONIC AND/OR VOLCANIC, MOSTLY GRANODIORITE OR QUARTZ DIORITE IN COMPOSITION

- LITHOLOGIC CONTACT, dashed where uncertain
- HIGH ANGLE FAULT, dashed where uncertain, solid where concealed
- THRUST FAULT, dashed where concealed

Generalized geologic map compiled by
C. F. MAYFIELD

EXAMPLE OF NUMBERING SYSTEM

In this system, the samples in each drainage basin will have consecutive map numbers.
The Noatak drainage is numbered 1-538. The Kobuk drainage is numbered 550-1261.

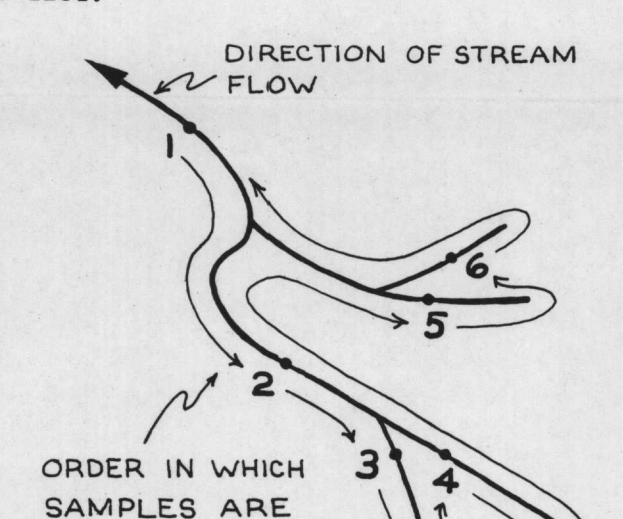
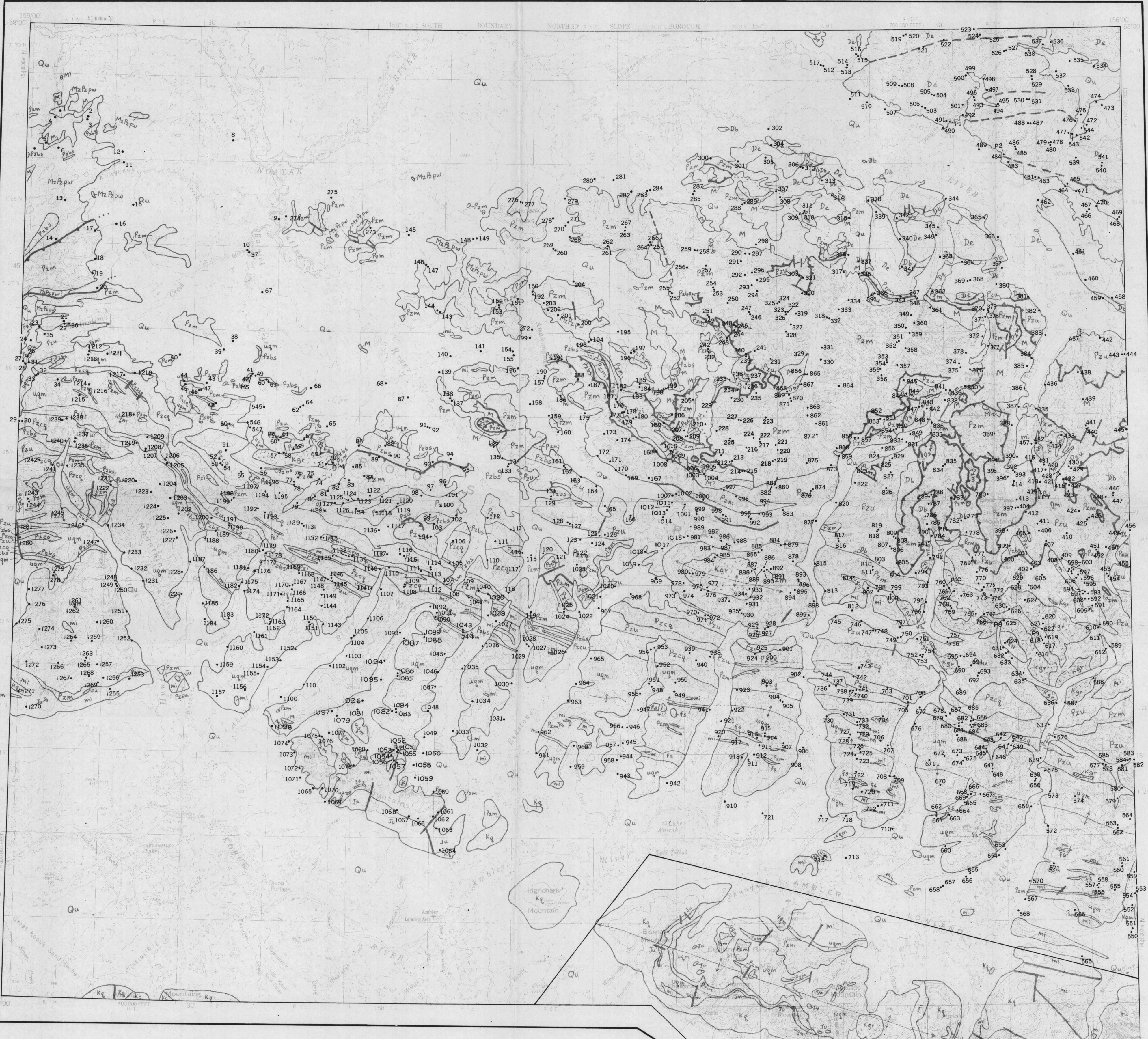
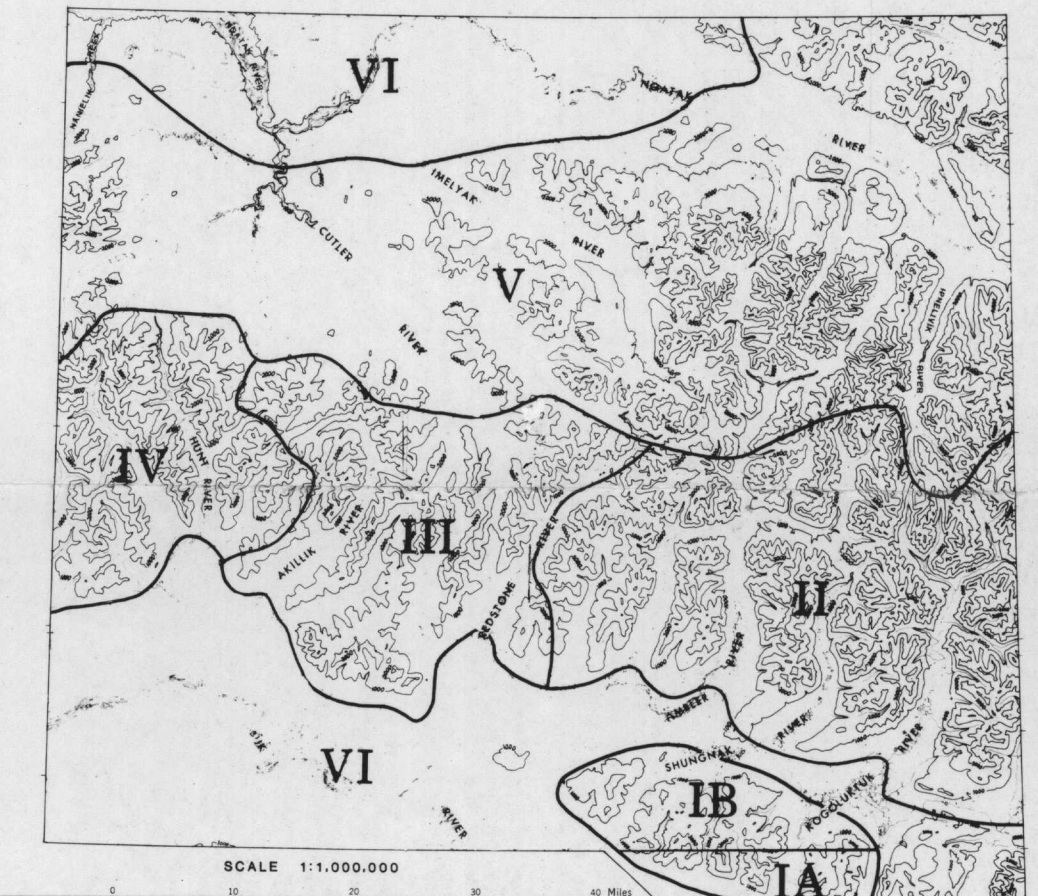


TABLE ONE

REGION	NO. SAMPLES SPEC. AA	FIELD NO. PREFIXES	ANALYTICAL SPEC	LABORATORY AA	REFERENCE
IA	124	124	—	USGS ANCHORAGE	Fritts, 1969
IB	112	112	—	UNIV. ALASKA MINERAL INDUSTRY RESEARCH LAB	Fritts, 1970
II	334	334	738 732 739 728 730 722 731	USGS ALASKA DIV. GEOLOGICAL AND GEOPHYSICAL SURV.	Garland and others, 1973
III	184	184	732	USGS AND ALASKA DIV. GEOLOGICAL AND GEOPHYSICAL SURV.	Garland and others, 1975
IV	119	32-113	7480 7481 7482	USGS ALASKA DIV. GEOLOGICAL AND GEOPHYSICAL SURV.	Pessel, 1976
V	561	560	766K 766D 767R 768WH	USGS BRANCH OF EXPLORATION RESEARCH	Ellersieck, 1978
VI	UNSAMPLED AREAS. COVERED WITH ALLUVIUM, COLLUVIUM, OR GLACIAL DRIFT				

REGIONS COVERED IN PREVIOUS REPORTS



This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

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.

MAP SHOWING STREAM-SEDIMENT GEOCHEMICAL SAMPLE LOCATIONS,
AMBLER RIVER RIVER QUADRANGLE, ALASKA
COMPILED BY INYO ELLERSIECK
1978