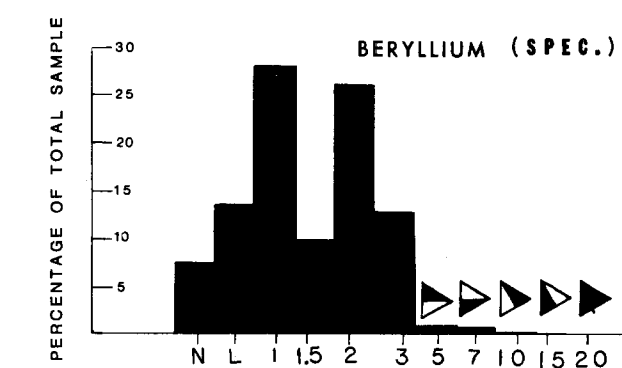


EXPLANATION OF ANOMALY SYMBOLS



MEAN 1.6 PPM
STANDARD DEVIATION 1.1 PPM
ANOMALY 3.8 PPM
NUMBER OF SAMPLES: 1198



Mean and standard deviation were not determined because too many samples lie below the measurable limits. Anomalous values are arbitrarily chosen.

L - LOWER LIMIT OF ANALYTICAL METHOD

EXPLANATION FOR GENERALIZED GEOLOGIC MAP

CORRELATION OF MAP UNITS		
SURFICIAL DEPOSITS		
	QU	QUATERNARY
SEDIMENTARY AND METASEDIMENTARY ROCKS		
Kg		CRETACEOUS
Kc		CRETACEOUS
M		MISSISSIPPIAN
Ds		DEVONIAN
Db		DEVONIAN
Pzm		DEVONIAN AND OLDER
METASEDIMENTARY ROCKS OF UNCERTAIN AGE		
MaPzm		MESOZOIC OR PALEOZOIC
Pzcq		PALEOZOIC
Pzbs		PALEOZOIC
Pzu		PALEOZOIC AND OLDER (?)
IGNEOUS AND META-IGNEOUS ROCKS		
Kgr		CRETACEOUS
Ju		JURASSIC
Mi		MESOZOIC AND OLDER PALEOZOIC
Is		MESOZOIC AND OLDER PALEOZOIC
Pzi		MESOZOIC AND OLDER PALEOZOIC
DESCRIPTION OF MAP UNITS		
SURFICIAL DEPOSITS		
QU	UNCONSOLIDATED SURFICIAL DEPOSITS (QUATERNARY)	
SEDIMENTARY AND METASEDIMENTARY ROCKS		
Kg	QUARTZ CONGLOMERATE, SANDSTONE, AND MUDSTONE (CRETACEOUS)	
Kc	IGNEOUS PEBBLE-COBBLE CONGLOMERATE (CRETACEOUS)	
M	LISBURNIE GROUP AND UPPER PART OF ENDICOTT GROUP (MISSISSIPPIAN)-INCLUDES KATIK SHALE AND KEKTIUK CONGLOMERATE	
Ds	LOWER PART OF ENDICOTT GROUP (DEVONIAN)-MAINLY SLATE AND SANDSTONE	
Db	DARK CALCAREOUS SCHIST, LIMESTONE, AND SILICEOUS PHYLLITE (DEVONIAN)	
Pzm	LIMESTONE AND MARBLE (DEVONIAN AND OLDER)	
METASEDIMENTARY ROCKS OF UNCERTAIN AGE		
MaPzm	PHYLLITE AND MAFIC VOLCANIC WACKE (MESOZOIC OR PALEOZOIC)	
Pzcq	CHLORITIC QUARTZITE AND SCHIST (PALEOZOIC)-LOCALLY INCLUDES FELDSPATHIC ORTHOQUARTZ	
Pzbs	GRAPHITIC PHYLLITE AND SCHIST (PALEOZOIC)	
Pzu	UNDIFFERENTIATED METAMORPHIC ROCKS (PALEOZOIC)-INCLUDES MARBLE, QUARTZITE, CALC-SCHIST, AND LESSER QUARTZ-MICA SCHIST	
uqm	GRAY PHYLLITE AND QUARTZ-MICA SCHIST (PALEOZOIC AND OLDER?)	
IGNEOUS AND META-IGNEOUS ROCKS		
Kgr	META-GRANITIC PLUTONIC ROCKS (CRETACEOUS)	
Ju	ULTRAMAFIC ROCKS AND SERPENTINITE (JURASSIC)	
Mi	BASALT, DIABASE, AND GREENSTONE (MESOZOIC AND/OR PALEOZOIC)	
Is	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, dotted where concealed
- - - THRUST FAULT, dotted where concealed

Generalized geologic map compiled by

C. F. MAYFIELD

Tin

Only 2.5 percent of the samples had tin values above the ten ppm lower measurable limit of the emission spectrographic method. Values of 15 ppm and above, 1.5 percent of the samples, are plotted as anomalies. No samples from 1976 were reported to have ten or 15 ppm tin, although there were five 1976 samples with 20 ppm or more. There is a possibility that 20 ppm may be the effective lower limit of detection in the 1976 sample set, and that there are some unrecognized "anomalies" of 15 ppm in these samples.

Tin anomalies are concentrated around the Kaluich and Shishakshinovik plutons and a smaller felsic intrusion north of the Shishakshinovik pluton. They are absent near the Redstone pluton. In this respect, tin anomalies follow the observed distribution of beryllium, molybdenum, lead, and zinc anomalies near the granitic intrusions.

One sample near the Cutler River, eight km downstream from the Kaluich pluton, is probably a placer concentration related to tin occurrences in or near the pluton.

Beryllium

Beryllium was measured by the emission spectrographic method. Over 20 percent of the samples had values below the lower measurable limit of one ppm. The mean and standard deviation calculated from this data are therefore only approximate. Beryllium values of five ppm and above, 1.9 percent of the samples, are plotted as anomalies.

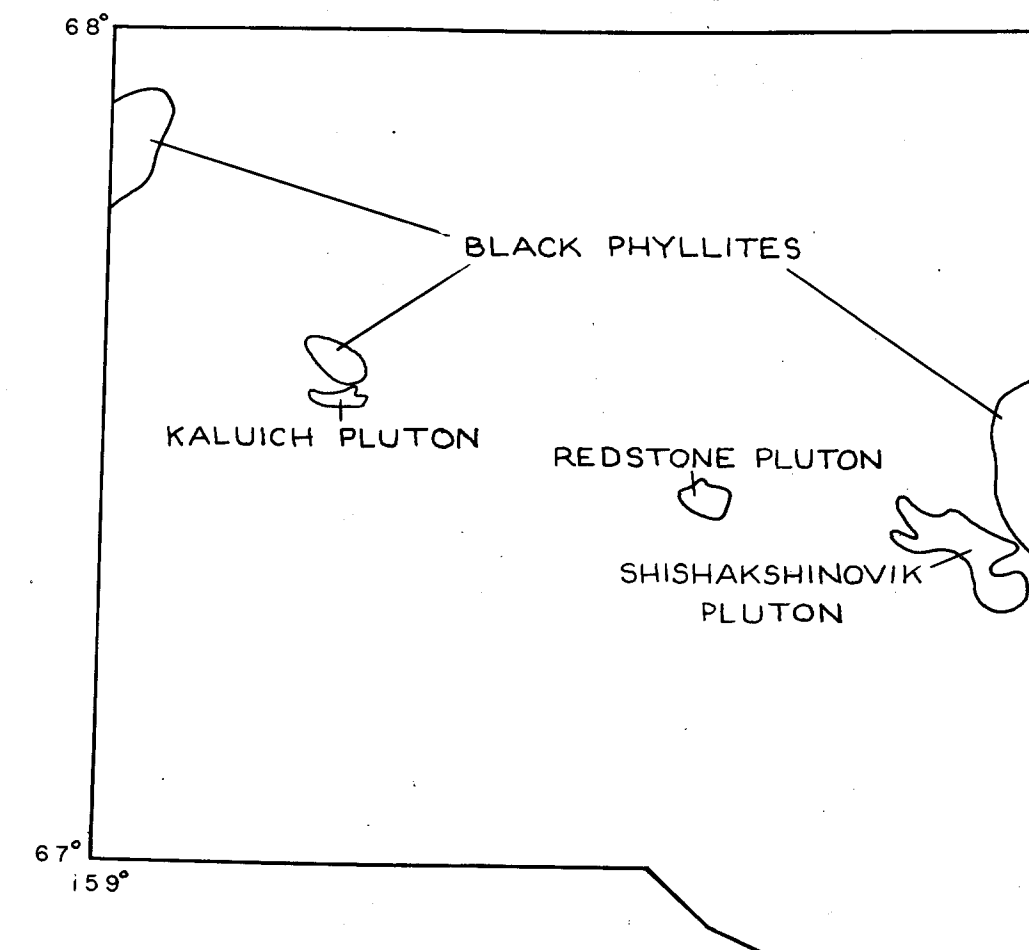
Most beryllium anomalies are near the Kaluich pluton or the north-east side of the Shishakshinovik pluton, associated with anomalies of tin, molybdenum, zinc, and silver. Some beryllium anomalies of five ppm are near black phyllites of map units Db and Pzbs.

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.

AREAS MENTIONED IN TEXT



MAP SHOWING TIN AND BERYLLIUM 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.