DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

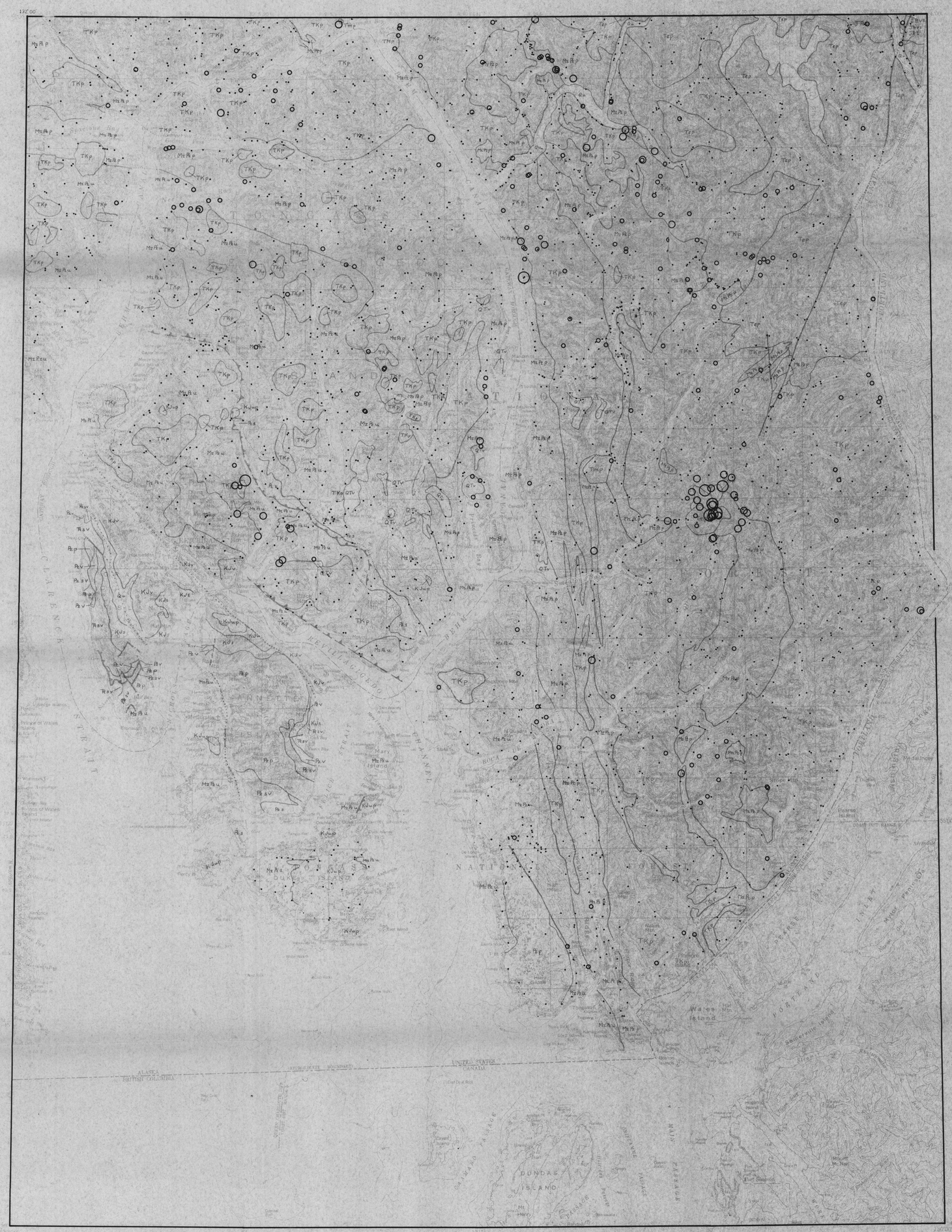
MOLYBDENUM

OPEN FILE

78-73

Folio of the Ketchikan and Prince Rupert Quadr

Koch and others--Geochemistry



Base from USGS 1:250,000 topo series: KETCHIKAN, 1955; PRINCE RUPERT, 1959. ALASKA-CANADA.

SCALE 1:250 000

4 0 4 8 12 16 20 MILES

4 0 4 8 12 16 20 KILOMETERS

CONTOUR INTERVAL 200 FEET
DATUM IS MEAN SEA LEVEL

TRUE NORTH
MAGNETIC NORTH
27½°
APPROXIMATE MEAN DECLINATION, 1955

Geology by H. Berg, R. Carten, J. Childs, A. Clark, W. Condon, M. Diggles, G. Dunne, R. Elliott, C. Holloway, J. Houghton, R. Koch, R. Miller, R. Rudser, J. Smith, B. Wiggins, 1966-1977

CORRELATION OF MAP UNITS

[Geologic map generalized from Berg and others (1978)]

Qu		QUATERNARY
QTv		QUATERNARY AND TERTIARY
Tmp	Miocene	TERTIARY
Tep	Eocene	
TKp		TERTIARY OR CRETACEOUS
KJup	Lower Cretaceous or Upper Jurassic	CRETACEOUS OR JURASSIC
KJs, KJv		
JRt, JRsvs		JURASSIC OR TRIASSIC
TRsv	Upper Triassic	TRIASSIC
MzPzp, MzPzu		MESOZOIC OR PALEOZOIC
Pzs	Middle and Upper Paleozoic	PALEOZOIC OR OLDER
Pzv		
Pzp	Silurian or Older	
Pzsv		

DESCRIPTION OF MAP UNITS

- Qu — UNCONSOLIDATED DEPOSITS, UNDIVIDED (Quaternary)
- QTv — VOLCANIC ROCKS (Quaternary and Tertiary)
- Tmp — UNDIVIDED MIOCENE PLUTONIC ROCKS
- Tep — UNDIVIDED EOCENE PLUTONIC ROCKS
- TKp — UNDIVIDED TERTIARY OR CRETACEOUS PLUTONIC ROCKS
- GRAVINA ISLAND FORMATION AND UNNAMED CORRELATIVE ROCKS (Lower Cretaceous or Upper Jurassic)
  - KJup — Ultramafic and other plutonic rocks
  - KJs — Metasedimentary rocks
  - KJv — Metavolcanic rocks
- JRt — TEXAS CREEK GRANODIORITE (Jurassic or Triassic)
- JRsvs — METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS (Jurassic or Triassic)
- TRsv — METAMORPHOSED SEDIMENTARY AND VOLCANIC ROCKS (Upper Triassic)
- MzPzp — PARAGNEISS AND AMPHIBOLITE (Mesozoic or Paleozoic)
- MzPzu — METAMORPHIC ROCKS, UNDIVIDED (Mesozoic or Paleozoic)
- Pzs — METAMORPHOSED SEDIMENTARY AND MINOR VOLCANIC ROCKS (Middle and upper Paleozoic)
- Pzv — FELSIC METAVOLCANIC ROCKS (Paleozoic or older)
- Pzp — PLUTONIC ROCKS, CHIEFLY TRONDHJEMITE (Silurian or older)
- Pzsv — METAMORPHOSED SEDIMENTARY AND VOLCANIC ROCKS (Silurian or older)

SYMBOLS

- Contact. Approximately located; dotted where concealed
- High-angle fault. Dashed where inferred; dotted where concealed
- Thrust fault. Dashed where concealed, inferred, or assumed. Sawteeth on upper plate

In the course of U.S. Geological Survey investigations of the
Prince Rupert quadrangles, 2602 stream-sediment samples were
ples were analyzed for up to 30 elements by a 6-step semiquan
sion spectroscopic method (Grimes and Marranzino, 1968) and
ments by atomic-absorption spectrophotometry (Ward and others
map shows sample collection sites for 2601 samples which were
molybdenum by the spectrographic method. Complete analytical
tion maps (scale 1:125,000), station coordinates, and a disc
and analytical procedures for samples from sites shown on th
lished in two reports (Koch and Elliott, 1978b, c). These da
available on magnetic computer tape (Koch, Van Trump, and McD

Background levels vary for different lithologies and in diffe
cause of this and variability introduced from other sources
practice, analytical variance, and degree of chemical weathe
possible to select a specific analytical level above which va
mineralization. For this reason, the analytical values have
into four ranges with each range represented by a different
map. Higher values may indicate a greater likelihood of bedr
from but confidence levels are low for single-element "anoma
sults which are not supported by neighboring values.

Selected References

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_____1978b, Analyses of rock and stream-sediment samples from
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Ketchikan and Prince Rupert quadrangles, southeastern Al
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PB-276-777].

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Atomic-absorption methods of analysis useful in geochemi
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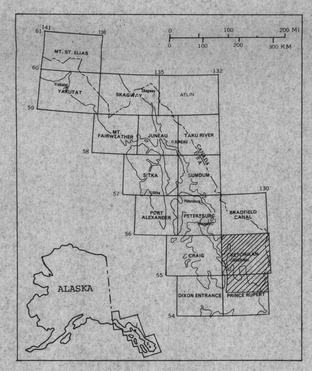

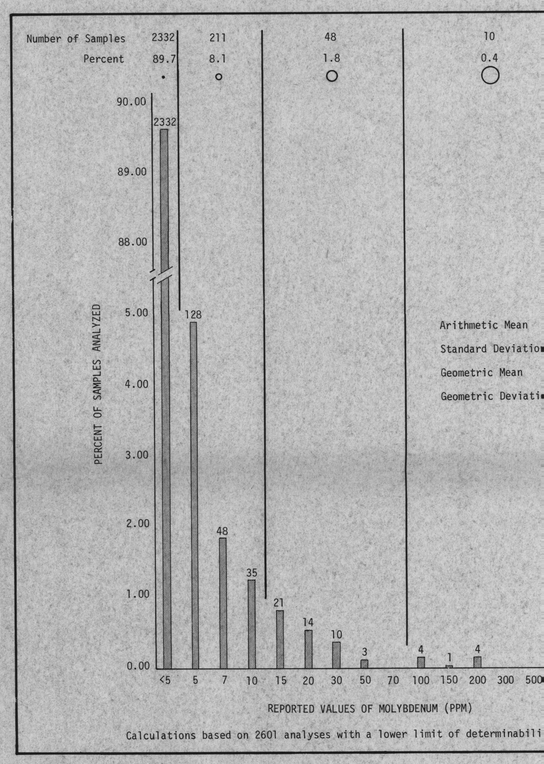

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MAP SHOWING SPECTROGRAPHICALLY DETERMINED MOLYBDENUM IN STREAM SEDIMENTS, KETCHIKAN AND PRINCE RUPERT QUADRANGLES, ALASKA

By

R.D. Koch, R.L. Elliott, and M.F. Diggles

1978