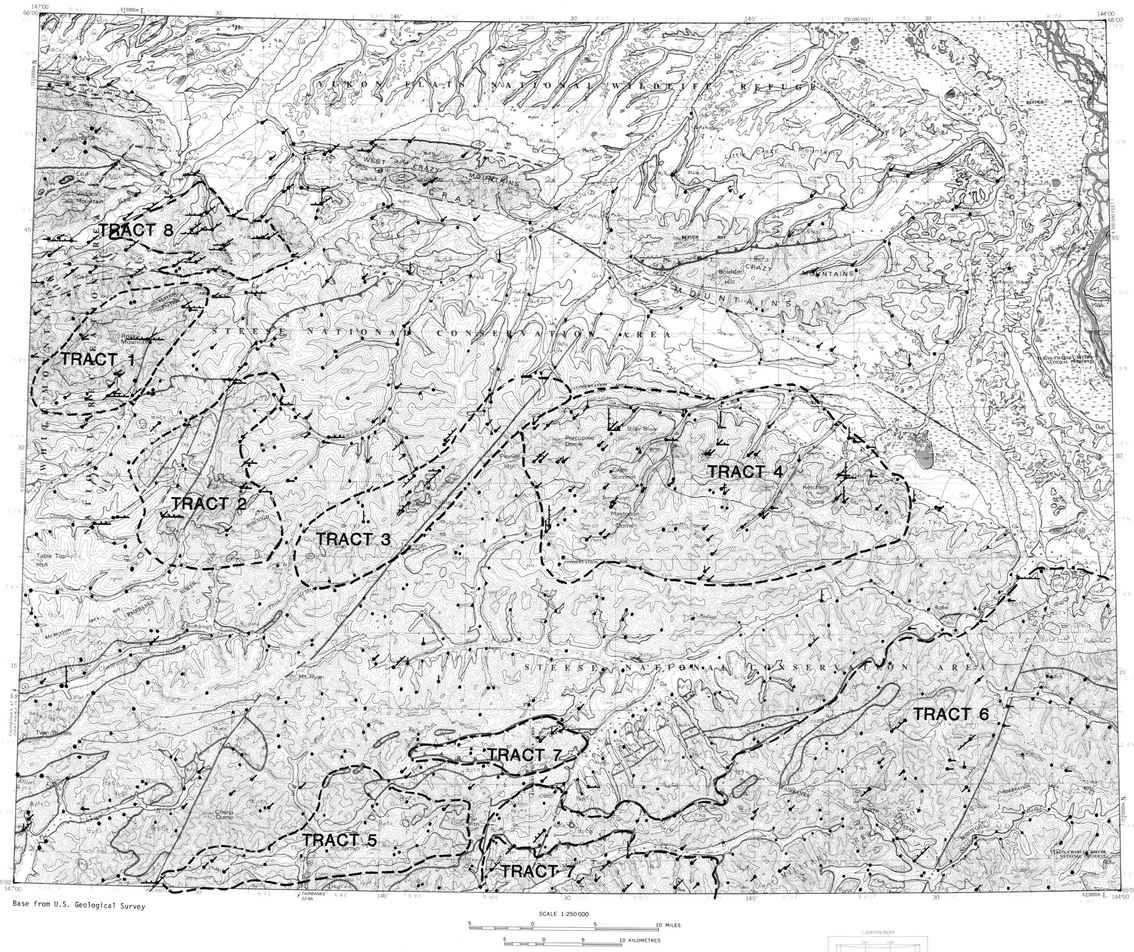
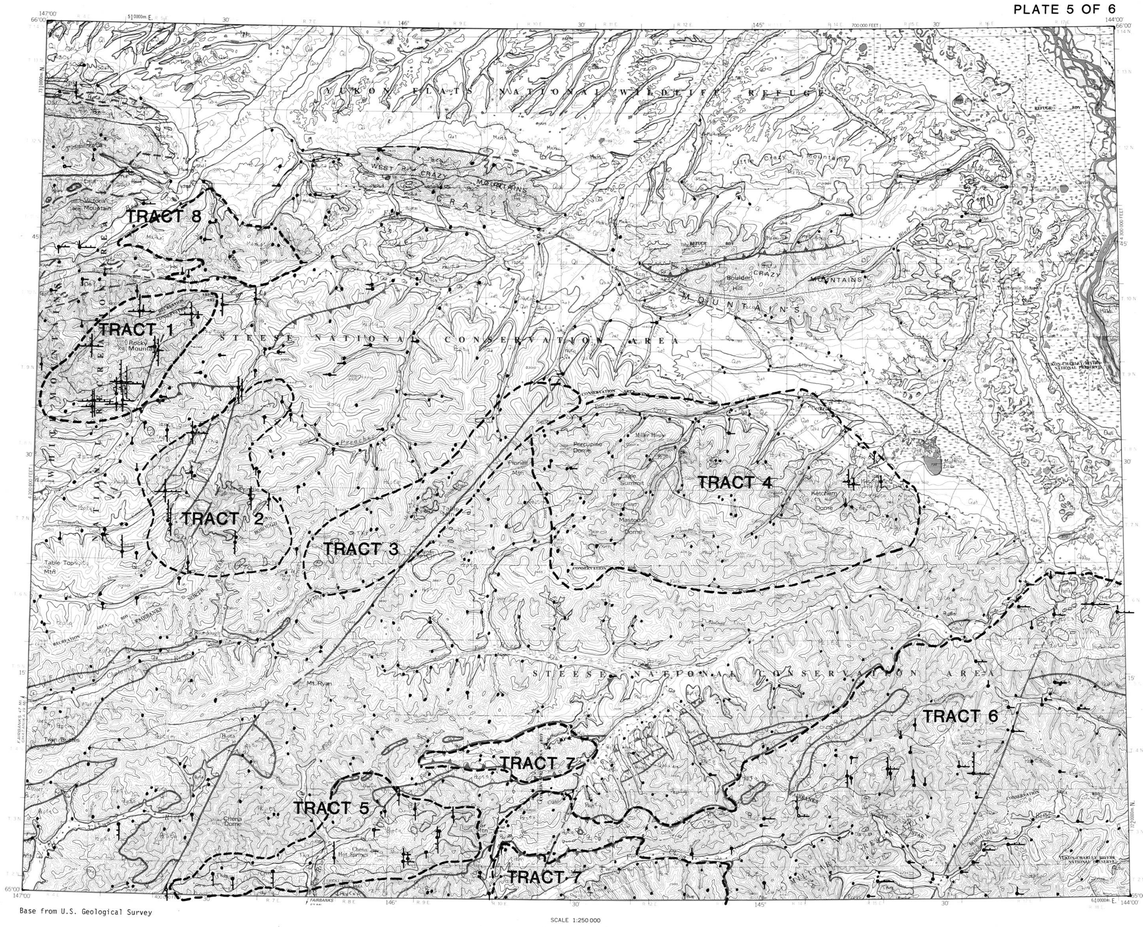


Base from U.S. Geological Survey



Base from U.S. Geological Survey

MAP H-1 MAP SHOWING DISTRIBUTION OF THE ELEMENTS Au, Ag, Sn, W, AND Mo

EXPLANATION OF SYMBOLS

Au, Ag, Mo, Sn, W

Au (gold)	Ag (silver)	Sn (tin)
L(0.05)-0.25	L(0.5)-1	L(10)-15
0.26-1.0	1.5-2	20-70
1.1-2.5	3-20	100
2.6-11	30	150-200

W (tungsten)	Mo (molybdenum)
L(50)	L(5)-7
50-70	10
100-200	15
300	20

● sample site (values below lowest value shown).

1. All values in parts per million (ppm).
2. L=detected,but below limit of determination.

CORRELATION OF MAP UNITS

UNCONSOLIDATED DEPOSITS

Qa, Qaf, Qs, Qsu, Ql — QUATERNARY

SEDIMENTARY ROCKS — UNMETAMORPHOSED IGNEOUS ROCKS

Tcs — TERTIARY (?)

Tkg, Tkf — Paleocene and Late Cretaceous — TERTIARY AND (OR) LATE CRETACEOUS

Northwest Circle Quadrangle	Area North of Tintina Fault Zone	Area South of Tintina Fault Zone	
Kjge (Cretaceous or Jurassic)			MESOZOIC
MzPat, MzPm (Age relations uncertain)	MzPc (Triassic and (or) Pennsylvanian and (or) Mississippian)	MzPd	MESOZOIC AND (OR) PALEOZOIC
PZug (Thrust Fault (?))	PMc (Pennsylvanian and (or) Mississippian)	PZcg (Age relations uncertain)	PALEOZOIC
Dsd, DSl (Devonian and (or) Silurian)		Pzcc, Pzc, Pzl, Dl (Devonian)	
SOs (Silurian and (or) Ordovician)			
Old (Ordovician (?))			
PZpCa (Fault (?))		PZpCa, PZpCb (Fault (?))	PALEOZOIC AND (OR) PRECAMBRIAN

Area North of Tintina Fault Zone: Dd (Devonian), PZq, PZm (Thrust Fault (?)) — PALEOZOIC; Pzp, Pzg, Pzw (Age relations uncertain) — PALEOZOIC (?)

Area South of Tintina Fault Zone: PZpCa, PZpCm, PZpCd, PZpCq, PZpCm, PZpCsr (Thrust Fault (?)); PZpCp (Thrust Fault (?)); Age relations uncertain — PALEOZOIC AND (OR) PRECAMBRIAN

MAP SYMBOLS

Contact--Approximately located, and inferred

Fault--Dashed where existence or kind of fault uncertain or where approximately located; dotted beneath covering deposits; U, upthrown side; D, downthrown side

Thrust fault--Postulated; dotted beneath covering deposits

Prometamorphic thrust fault--Postulated; predates major regional metamorphism; dotted beneath covering deposits

Geology from Foster and others, 1983, U.S. Geological Survey Open-File Report 83-170-A

MAP H-2 MAP SHOWING DISTRIBUTION OF THE ELEMENTS Be, La, U, AND Th

DEFINITION OF MAP UNITS

UNCONSOLIDATED DEPOSITS

- Qa — Alluvium and colluvium
- Qaf — Alluvial fan deposits
- Qs — Silt and peat
- Qsu — Silt, undifferentiated and organic material
- Qg — Gravel
- Ql — Loess

SEDIMENTARY ROCKS

- Tcs — Conglomerate and sandstone

UNMETAMORPHOSED IGNEOUS ROCKS

- Tkg — Granite
- Tkf — Felsic igneous rock

NORTHWEST CIRCLE QUADRANGLE

- Kjqe — Quartzite, argillite, conglomerate, and hornfels
- MzPat — Argillite, tuff, quartzite, and conglomerate
- MzPam — Argillite and quartzite
- PZuvg — Ultramafic and mafic rocks and greenstone
- DSd — Dolomite and argillite
- DSl — Limestone, dolomite, and shale
- SOs — Siltstone, dolomite, chert, and mafic igneous rocks
- Old — Livengood Dome(?) Chert
- PZpCa — Argillite, grit, and quartzite
- PZpCqs — Grit, quartzite, and argillite

AREA NORTH OF TINTINA FAULT ZONE

- MzPzc — Circle Volcanics and associated rocks
- PMc — Chert, argillite, and quartzite
- MzPzd — Diorite
- Pzcg — Chert pebble conglomerate
- Pzcc — Chert, conglomerate, and limestone
- Pzc — Chert and argillite
- Dl — Limestone
- Pzl — Limestone and chert
- PZpCa — Argillite, grit, and quartzite
- PZpCb — Basalt and limestone

AREA SOUTH OF TINTINA FAULT ZONE

- Dd — Augen gneiss
- PZpq — Quartzite, meta-argillite and phyllite
- PZpm — Phyllite, calcareous phyllite, and marble
- PZpCs — Pelitic schist
- PZpCms — Garnet-muscovite schist
- PZpCd — Dolomite and marble
- PZpCq — Quartzite and quartzitic schists (includes magnetic chlorite schist subunit (PZpCpm))
- PZpCm — Mafic schist
- PZpCsr — Grit and quartzite

Ultramafic, Mafic, and Eclogitic Rocks

- PZp — Serpentinized peridotite
- PZg — Greenstones
- PZe — Eclogite

EXPLANATION OF SYMBOLS

Be, Th, La, U

Be (beryllium)	La (lanthanum)
L(1)-3	L(20)-100
7-10	150-200
15-20	300-500
30	700

U (uranium)	Th (thorium)
L(0.05)-3.9	L(100)
4-55	100
56-104	150-200

● sample site (values below lowest value shown)

1. All values in parts per million (ppm).
2. L= detected, but below limit of determination.
3. G=greater than value shown.

GEOCHEMICAL MAPS SHOWING DISTRIBUTION OF GOLD, SILVER, TIN, TUNGSTEN, MOLYBDENUM, BERYLLIUM, LANTHANUM, URANIUM, AND THORIUM IN THE MINUS-80-MESH STREAM SEDIMENT, CIRCLE QUADRANGLE, ALASKA

By
Richard B. Tripp, William D. Crim, James D. Hoffman, Richard M. O'Leary, and Donald A. Risoli

1986

This map is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature