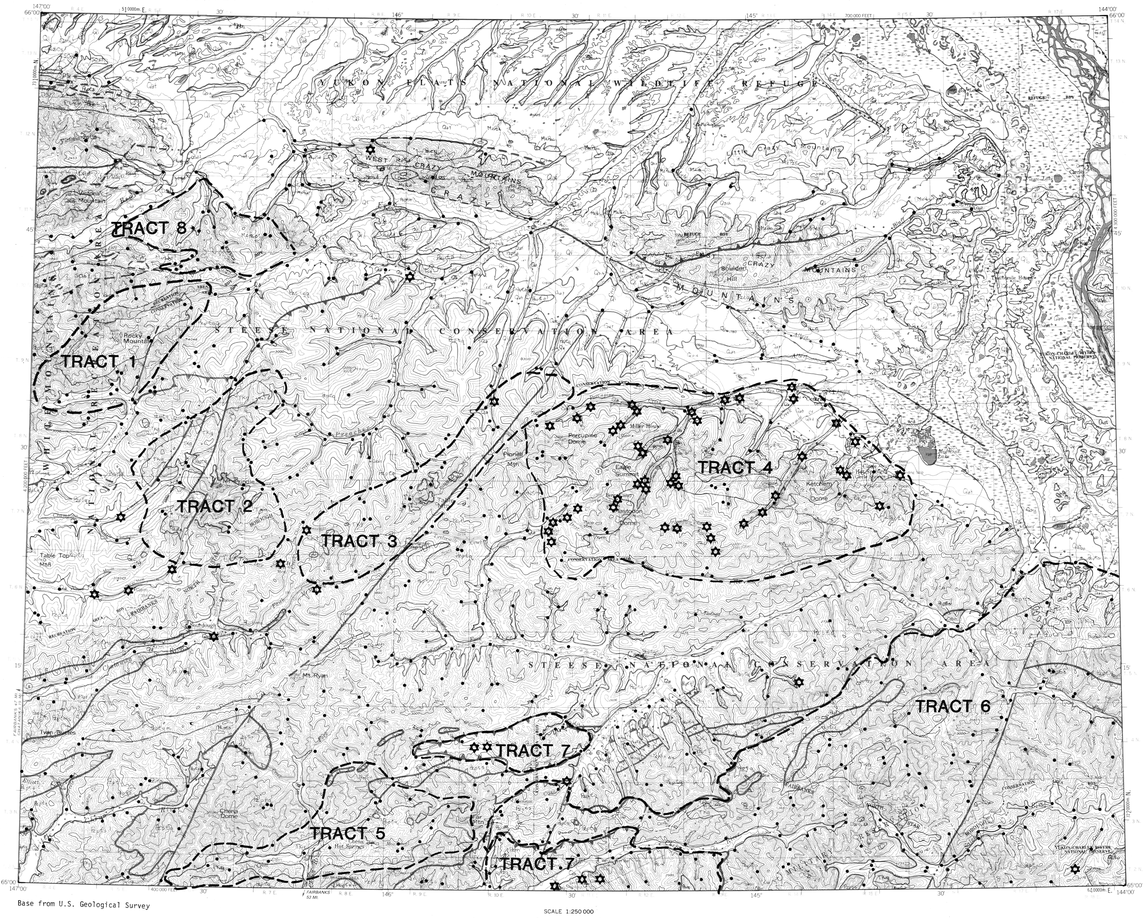
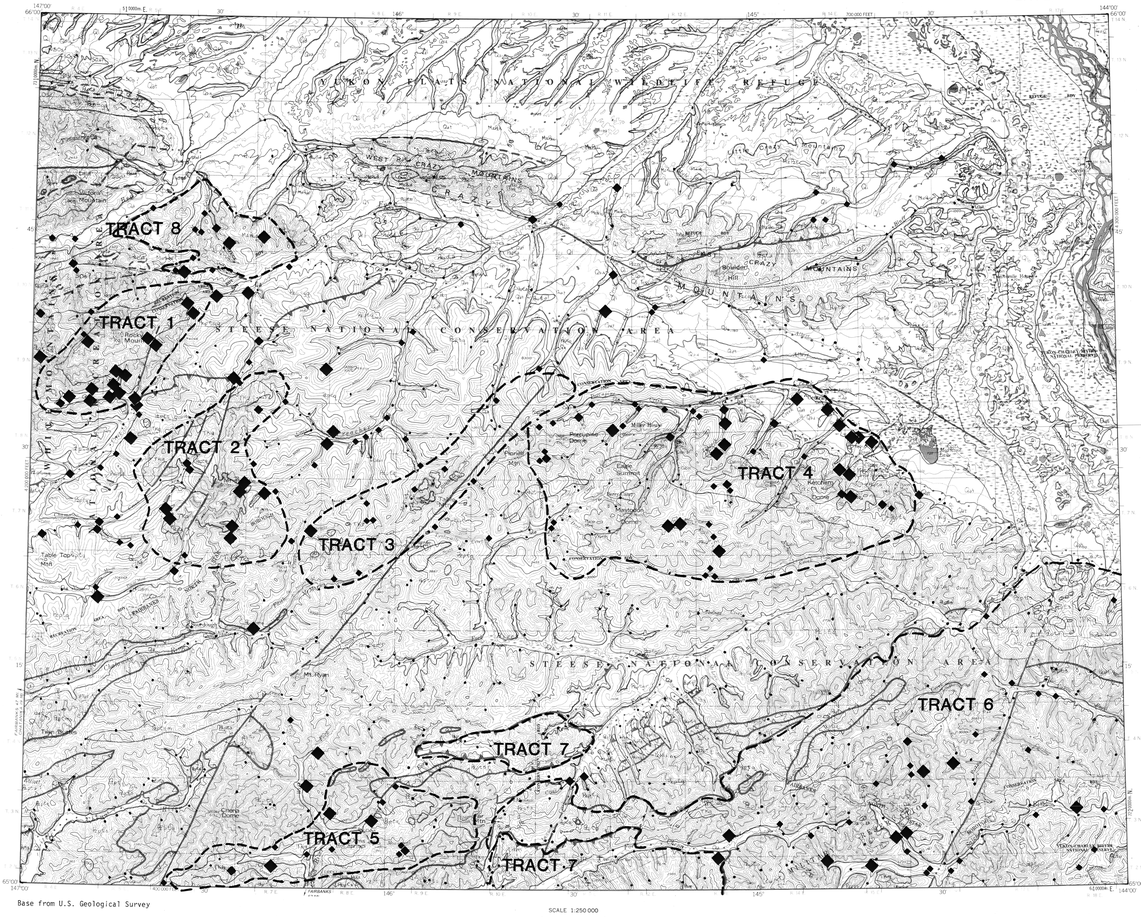
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

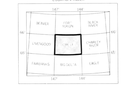
FOLIO OF THE CIRCLE QUADRANGLE, ALASKA
OPEN-FILE RERORT 83-170-F-H
PLATE 1 OF 6



MAP F-1 MAP SHOWING DISTRIBUTION OF GOLD



MAP F-2 MAP SHOWING DISTRIBUTION OF CASSITERITE



EXPLANATION OF SYMBOLS

gold

sample site (mineral not observed)

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	
KJqa — Cretaceous or Jurassic		MESOZOIC	
Fault (?)			
MzPzat MzPzq — Age relations uncertain	MzPzc — Triassic and Pennsylvanian and (or) Devonian Metasedimentary and Metavolcanic	MzPzd	MESOZOIC AND (OR) PALEOZOIC
Pzug — PALEOZOIC (?)	PMc — Pennsylvanian and (or) Mississippian Metasedimentary — Age relations uncertain	Pzcg — Devonian: Dl	PALEOZOIC
Thrust Fault (?)	Thrust Fault (?)		
DSd DSl — Devonian and (or) Silurian		Pzcc Pzc Pzl	
SOs — Silurian and (or) Ordovician		Da — Devonian	PALEOZOIC
Old — Ordovician (?)		Pzq Pzm	
Fault (?)		Thrust Fault (?)	
PzpCa PzpCgl	Fault (?) PzpCb	PzpCs PzpCmv PzpCz — Thrust Fault (?) PzpCs PzpCm — Thrust Fault (?) PzpCgr — Age relations uncertain	PALEOZOIC AND (OR) PRECAMBRIAN
			Age relations uncertain: Pzp Pzg Pze — PALEOZOIC (?)
			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

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

KJqa — Quartzite, argillite, conglomerate, and hornfels
MzPzat — Argillite, tuff, quartzite, and conglomerate
MzPzaq — Argillite and quartzite
Pzug — Ultramafic and mafic rocks and greenstone
DSd — Dolomite and argillite
DSl — Limestone, dolomite, and shale
SOs — Siltstone, dolomite, chert, and mafic igneous rocks
Old — Liveoypool Dome(?) Chert
PzpCa — Argillite, grit, and quartzite
PzpCgl — 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
Dsl — Limestone and chert
PzpCa — Argillite, grit, and quartzite
PzpCb — Basalt and limestone

AREA SOUTH OF TINTINA FAULT ZONE

Da — Augen gneiss
Pzq — Quartzite, meta-argillite and phyllite
Pzm — Phyllite, calcareous phyllite, and marble
PzpCs — Pelitic schist
PzpCmv — Garnet-muscovite schist
PzpCd — Dolomite and marble
PzpCa — Quartzite and quartzitic schists (includes magnetic chlorite schist subunit (PzpCgr))
PzpCm — Mafic schist
PzpCgr — Grit and quartzite

Ultramafic, Mafic, and Eclogitic Rocks

Pzp — Serpentinized peridotite
Pzg — Greenstones
Pze — Eclogite

EXPLANATION OF SYMBOLS

CASSITERITE

trace to 0.9 percent

1 to 9.9 percent

10 percent or greater

sample site (mineral not observed)

Volume percent determined by visual estimation of nonmagnetic heavy-mineral fraction.

MINERALOGICAL MAPS SHOWING DISTRIBUTION OF GOLD AND CASSITERITE IN THE NONMAGNETIC HEAVY-MINERAL FRACTION OF STREAM SEDIMENT, CIRCLE QUADRANGLE, ALASKA

By
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1986

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