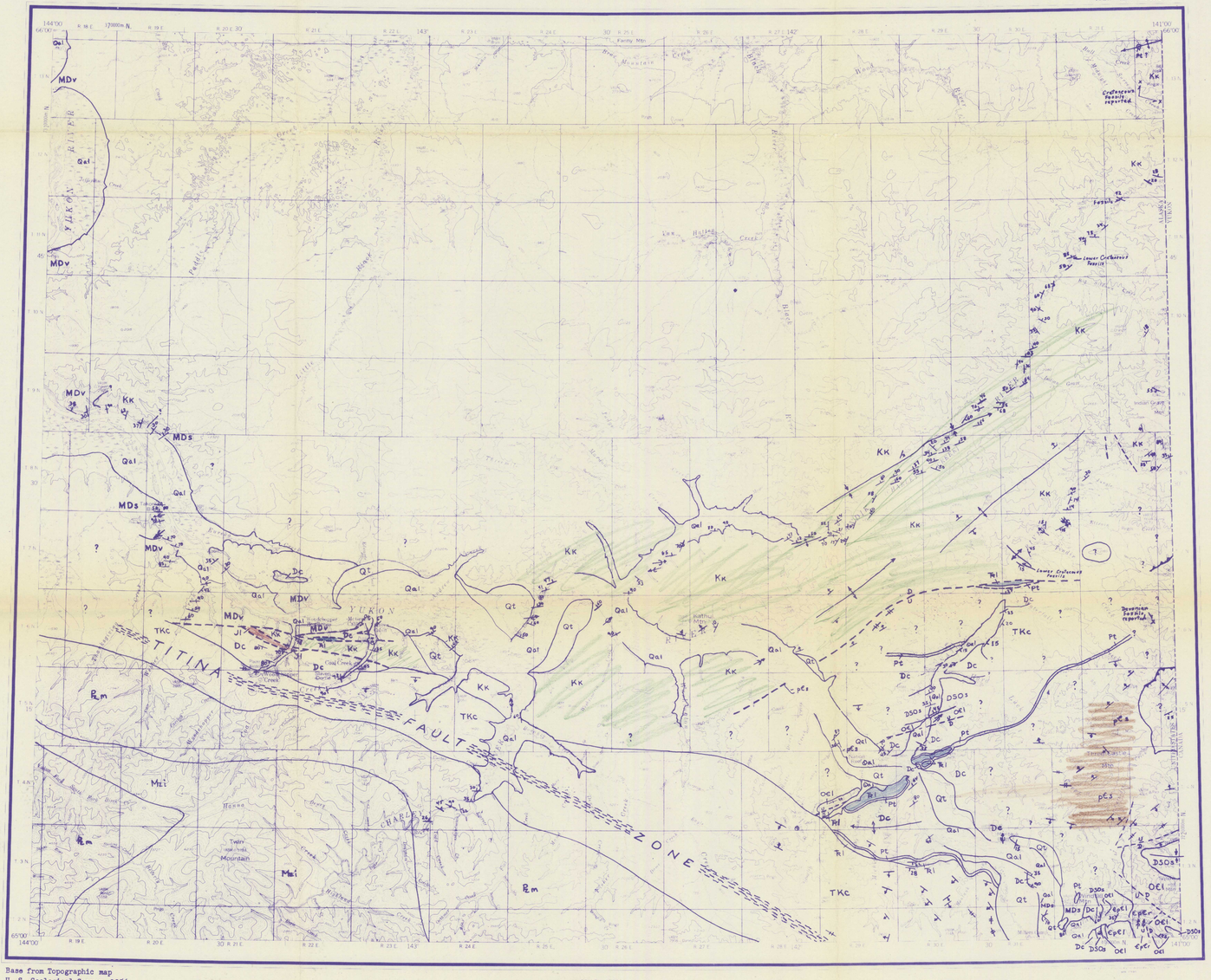
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CHARLEY RIVER

U. S. Geological Survey
OPEN FILE REPORT



Base from Topographic map
U. S. Geological Survey, 1956

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

OPEN FILE REPORT

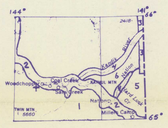
SCALE 1:250000

CONTOUR INTERVAL 200 FEET
DATUM IS MEAN SEA LEVEL

1956 MAGNETIC DECLINATION AT SOUTH EDGE OF SHEET RANGES FROM 30°E TO 31°E

PRELIMINARY GEOLOGIC MAP OF PART OF THE CHARLEY RIVER QUADRANGLE EAST CENTRAL ALASKA

By
Earl E. Brabb
1962



Compilation diagram

1. Modified from Mertie, 1930, plate 12.
2. Mertie, 1930, 1933, 1937, and 1942, and field work by Brabb, 1960-1961
3. Modified from Cairnes, 1918, map 1104.
4. Field work by Brabb, 1960
5. Modified from Mertie, 1933, plate 7 and Cairnes, 1918, map 1104.
6. Mapping by photogeologic methods only.

EXPLANATION

	Qal — Alluvial deposits	QUATERNARY
	Qt — River Terrace deposits	
Lower Cretaceous and Eocene	TKc — Clastic rocks Sandstone, shale and conglomerate; nonmarine. Age; Albian or Cenomanian, in part	CRETACEOUS AND TERTIARY
	UNCONFORMITY	
	SEDIMENTARY ROCKS NORTH OF TITINA FAULT ZONE	
Lower Cretaceous	Kk — Kandik Formation Chiefly shale, argillite, slate and graywacke with lesser amounts of chert-pebble conglomerate, pebbly mudstone, quartzite and "clean" sandstone. Age; Valanginian, in part	CRETACEOUS
	RELATION UNKNOWN	
	JI — Limestone Massive light olive gray to dark gray limestone with a few clastic gray chert pebbles	JURASSIC(?)
	RELATION UNKNOWN	
Upper Triassic	Ri — Limestone and oil shale Light olive gray dolomitic limestone and grayish-black oil shale, shaly limestone, and limestone. Age; Karnian and Norian	TRIASSIC
	RELATION UNKNOWN	
	Pt — Tahkandit Limestone Massive coarse-grained very pale orange limestone apparently grading eastward into fine-grained dark gray limestone. Sandstone, glauconitic sandstone, and chert-pebble conglomerate at base of formation.	PERMIAN
	UNCONFORMITY	
Upper Devonian to Upper Mississippian	MDs — Shale and chert Grayish-black and brownish-black shale, siliceous shale and chert. Includes a local limestone, shaly limestone and shale facies previously mapped as the Calico Bluff Formation of Late Mississippian age	DEVONIAN AND MISSISSIPPIAN
Upper Devonian	Dc — Clastic rocks Light to dark gray and olive gray silty shale, mudstone, and argillite with interbedded sandstone, graywacke, quartzite, and chert-pebble conglomerate	DEVONIAN
Lower Ordovician to Middle Devonian	DSOs — Shale and chert Grayish-black shale, graptolitic shale and black chert. Includes a brownish-black crinoidal limestone of Middle Devonian age which apparently thickens in a northerly and easterly direction	ORDOVICIAN, SILURIAN AND DEVONIAN
Lower Cambrian to Middle Ordovician	OEl — Limestone Light olive gray and olive gray fine-grained limestone and yellowish-gray fine- to coarse-grained limestone, dolomite and silicified limestone. Includes grayish-green and red shale, gray and brown quartzite, oil-stained black limestone, oolitic limestone, "edgewise" limestone conglomerate, and black chert	CAMBRIAN AND ORDOVICIAN
Precambrian or Lower Cambrian	epEl — Limestone and dolomite Chiefly brownish-black and very pale orange limestone and dolomite with lesser amounts of light olive gray and dark gray shale, light to dark gray sandstone, and dolomite-volcanic rock conglomerate	PRECAMBRIAN OR CAMBRIAN
	pEr — Red beds Chiefly grayish-red tuffaceous shale. Includes basalt, tuff, dolomite, jasper and dolomite-volcanic rock conglomerate	
	RELATION UNKNOWN BUT MAY BE MAJOR UNCONFORMITY	
	pEs — Sedimentary rocks Dolomite, quartzite, limestone, shale, argillite, pillow lavas and basic intrusive rocks	PRECAMBRIAN

	VOLCANIC ROCKS	
Middle Devonian in part	MDv — Basic volcanic rocks Chiefly basalt and andesite. Includes pillow lavas, flow breccias, tuff, tuffaceous sedimentary rocks, argillite, chert, limestone, dolomite, and a few basic intrusive rocks not separately mapped	DEVONIAN AND MISSISSIPPIAN(?)
	METAMORPHIC ROCKS SOUTH OF TITINA FAULT ZONE	
	Pzm — Metamorphic rocks Metamorphosed sedimentary and volcanic rocks. Includes quartz-mica schist, sericite schist, chlorite schist, greenstone and marble. Possibly Precambrian and probably Devonian, in part	PALEOZOIC
	IGNEOUS ROCKS	
	Mzi — Granitic rocks	MESOZOIC(?)

Contact

Fault
Dashed where approximately located. U, upthrown side; D, downthrown side

Thrust fault
Sawteeth on upper plate

Fault zone
Approximately located; concealed beneath sedimentary rocks and alluvium

FOLDS

Anticline showing trace of axial plane and plunge of axis

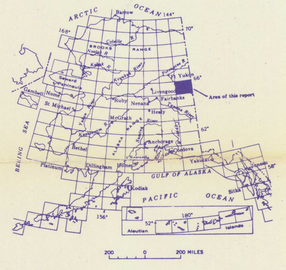
Syncline showing trace of axial plane and plunge of axis

Plunge of minor anticline

Plunge of minor syncline

BEDDING

FIELD MEASUREMENT	PHOTOGEOLOGIC INTERPRETATION
45 — Strike and dip of beds	
90 — Strike of vertical beds	
70 — Strike and dip of overturned beds	
⊕ Strike of horizontal beds	



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