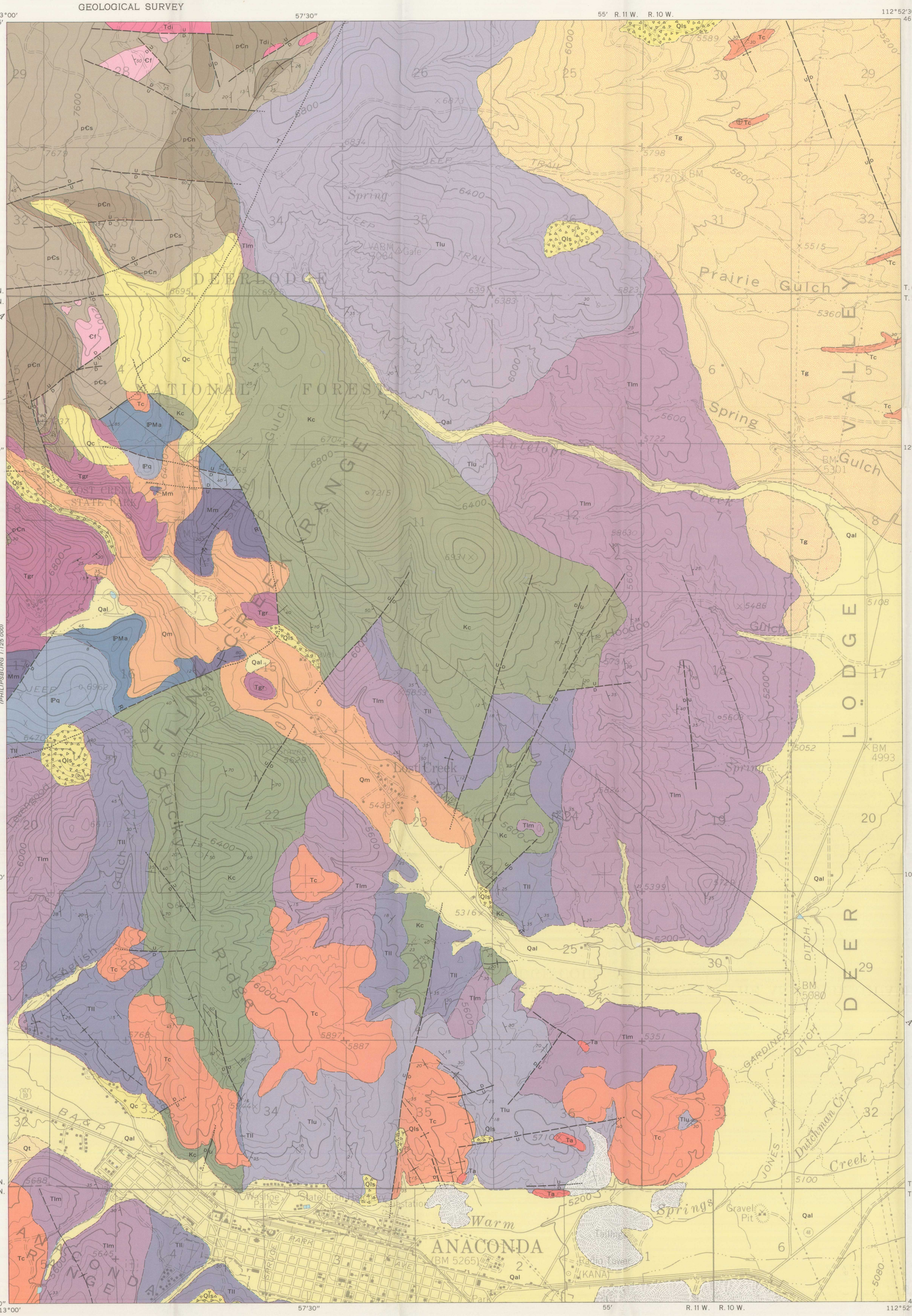


(PHILIPSBURG) 1:125 000

Base from U.S. Geological Survey 1:62,500 topographic quadrangle: Anaconda, 1961
Modified 1965

APPROXIMATE MEAN DECLINATION, 1966
TRUE NORTH
MAGNETIC NORTH
19°

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

Geology by A. A. Wanek and C. S. V. Barclay, 1961–62

EXPLANATION

SURFICIAL DEPOSITS

QUATERNARY — *Pleistocene and Recent*

- **Qal** — Alluvium
- **Qc** — Colluvium
- **Qls** — Landslide deposits
- **Qt** — Terrace gravel
- **Qm** — Glacial moraine deposits

UNCONFORMITY

SEDIMENTARY ROCKS

TERTIARY

- *Pliocene* — **Tg** — Gravel

UNCONFORMITY

- *Miocene(?)* — **Tc** — Conglomerate

UNCONFORMITY

- *Eocene* — **Tlu**, **Tlm**, **Tll** — Lowland Creek Volcanics
  Members separated by unconformities
  Tlu, *volcanic breccia and red-bed member*
  Tlm, *ash-flow tuff member*
  Tll, *basal member*

UNCONFORMITY

CRETACEOUS

- *Upper Cretaceous* — **Kc** — Colorado Shale
- *Lower Cretaceous* — **Kk** — Kootenai Formation

UNCONFORMITY

JURASSIC

- *Middle and Upper Jurassic* — **Js** — Sedimentary rocks

UNCONFORMITY

PERMIAN

- **Pp** — Phosphoria Formation

CARBONIFEROUS

PENNSYLVANIAN

- **Pq** — Quadrant Formation

MISSISSIPPIAN

- **PMa** — Amsden Formation
- *Middle Lower and Upper Mississippian* — **Mm** — Madison Limestone

CAMBRIAN

- *Middle Cambrian* — **€f** — Flathead Quartzite

UNCONFORMITY

PRECAMBRIAN

- *Belt* — **p€s** — Spokane Formation
- **p€n** — Newland Formation

IGNEOUS ROCKS

TERTIARY

- **Ta** — Andesite or trachyandesite plugs
- **Tgr** — Granite
- **Tdi** — Diorite

Contact
Dashed where approximately located; short dashed where indefinite

Normal fault
Dashed where approximately located; dotted where concealed. U, *upthrown side;* D, *downthrown side (neither* U *nor* D *shown where direction of movement unknown)*

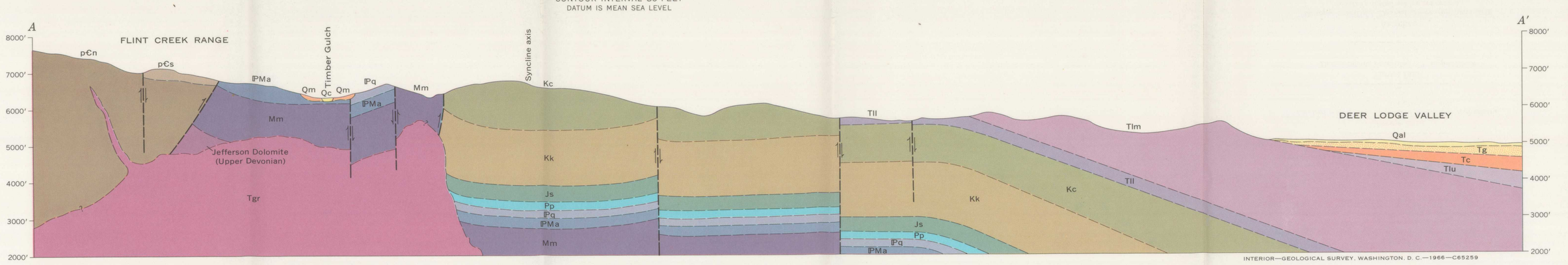
Reverse fault
Dashed where approximately located; dotted where concealed. R, *upthrown side*

Thrust fault
Dotted where concealed. T, *upper plate*

Anticline
Showing crestline. Dashed where approximately located; dotted where concealed

Syncline
Showing troughline. Dashed where approximately located; dotted where concealed

Strike and dip of beds
Strike of vertical beds
Horizontal beds
Strike and dip of foliation
Mine dump or slag heap
Quarry



INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1966—C65259

GEOLOGIC MAP AND SECTION OF THE NORTHWEST QUARTER OF THE ANACONDA QUADRANGLE DEER LODGE COUNTY, MONTANA