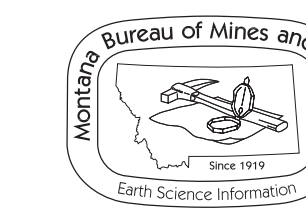


MBMG Open File 517
**Bedrock and Surficial Geologic Map of
 the Monument Hill 7.5' Quadrangle
 Southwest Montana**

Mapped and compiled by
 Michael L. Newton, Christine A. Regalla,
 David J. Anastasio, and Frank J. Pazzaglia

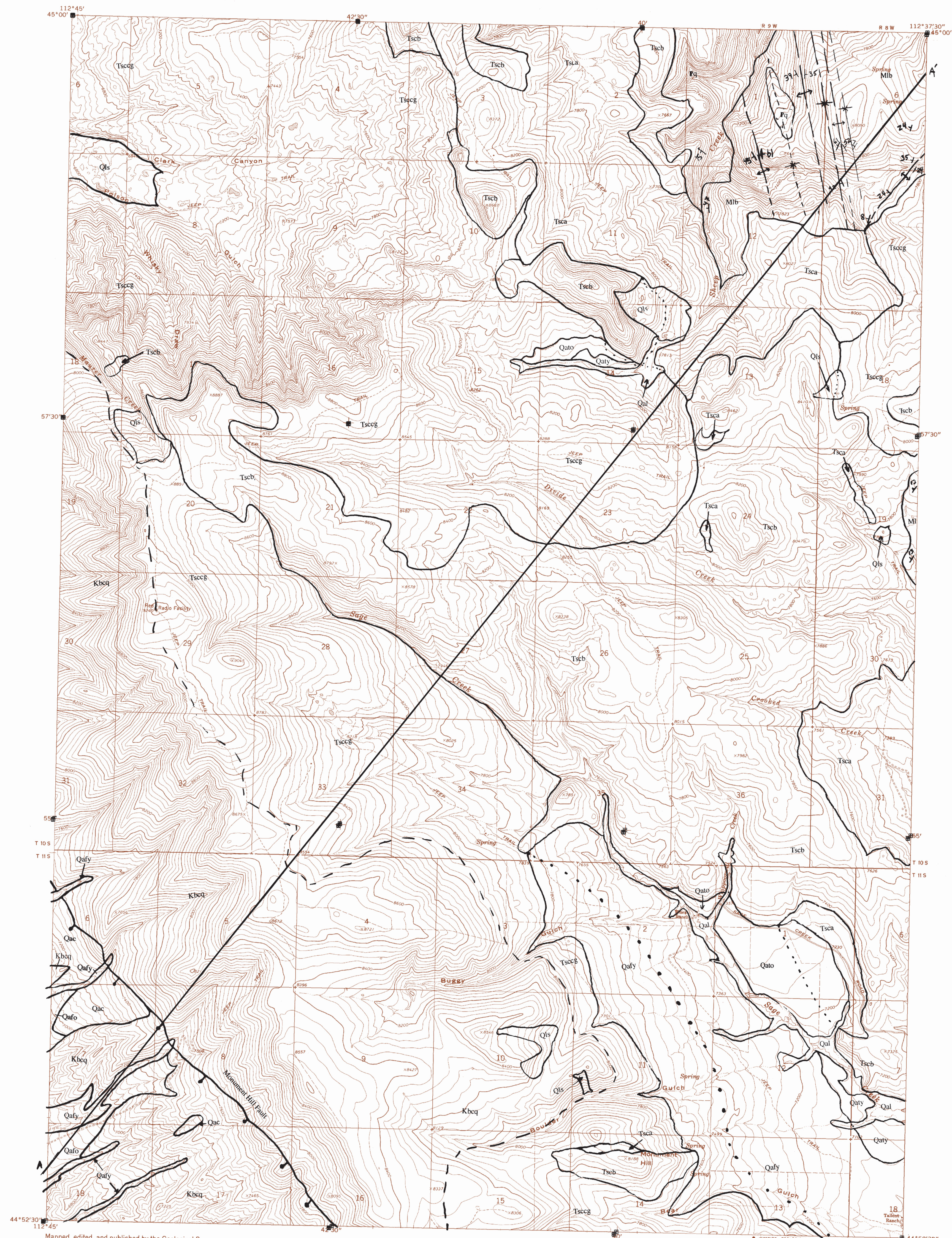
Earth and Environmental Sciences Department
 Lehigh University, Bethlehem, PA

2005



Maps may be obtained from: Publications Office
 Montana Bureau of Mines and Geology
 1300 West Park Street
 Butte, Montana 59701-0997
 Phone: (406) 496-4167
 Fax: (406) 496-4451
 http://www.mbm.mtech.edu

Partial support has been provided by the EDMAP component of the National Cooperative Geologic Mapping Program of the U.S. Geological Survey under Contract Number 04HQAG0099.
 GIS production: Ken Sandau and Paul Thale, MBMG. Map layout: Susan Smith, MBMG.



Mapped, edited, and published by the Geological Survey
 Control by USGS and USC&GS
 Topography by photogrammetric methods from aerial
 photographs taken 1964. Field checked 1985.
 Polyconic projection, 1927 North American datum,
 10,000-foot grid based on Montana coordinate system,
 south zone.
 1000-meter Universal Transverse Mercator grid ticks,
 zone 12, shown in blue.

SCALE 1:24,000
 1 MILE
 1 KILOMETER
 CONTOUR INTERVAL 40 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1983 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

Cross-Section Explanation

- Qafo Alluvial fan deposit, older
- Tscog Conglomerate deposit of Sixmile Creek Formation
- Tsca Anderson Ranch member, informal, of Sixmile Creek Formation
- Tscab Basalt of Anderson Ranch member, Sixmile Creek Formation
- Kbcq Quartzite conglomerate of Beaverhead Group
- *Kbcj Limestone conglomerate of Beaverhead Group
- *KJkm Kootenai and Morrison Formations, undivided
- *rd Dinwoody Formation
- *Pp Phosphoria Formation
- *Pq Quadrant Formation
- *PMSr Snowcrest Range Group, undivided (includes Lombard Fm.)
- *Mmc Mission Canyon Formation
- MI Lodgepole Formation

For unit descriptions refer to the text.
 *Refer to Lonn and others (2000) for descriptions of subsurface units.

..... Schematic representation of mapped folds in Lombard Fm.

Folding of the upper Paleozoic strata is disharmonic (e.g. Scholten and others, 1955; Pecora, 1981; Harkins and others, 2004a, 2004b) making uncertain the depth to which folds mapped in the Lombard Formation of the Snowcrest Range Group can be projected into depth. Bedding-parallel décollements also occur between formations where changes in lithology and fold geometry occur.

Presence and thickness of subsurface units are unknown owing to extensive regional post-Mississippian and pre-Tertiary erosion.

