DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

BULLETIN 1591
PLATE 1

GEOLOGIC MAP AND CROSS SECTIONS OF THE GROS VENTRE WILDERNESS STUDY AREA, TETON AND SUBLETTE COUNTIES, WYOMING

Base from U.S. Geological Survey 1:24,000 Blue Miner Lake, 1968; Bull Creek, 1985; Cache Creek, 1985; Crystal Peak, 1967; Darwin Peak, 1967; Doubletop Peak, 1967; Granite Falls, 1967; Grizzly Lake, 1965; Ouzel Falls, 1967; Tosi Peak, 1967; Turquoise Lake, 1965; Upper Slide Lake, 1965

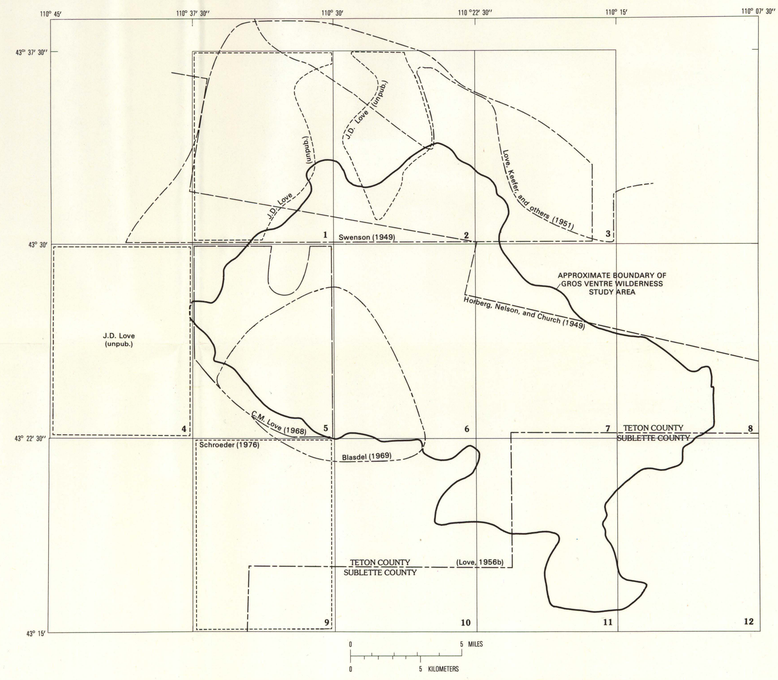
SCALE 1:48 000

1 ½ 0 1 2 3 MILES
1 .5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Geology by F.S. Simons, W.R. Keefer, and D.S. Harwood, 1975, and J.D. Love, 1975 and 1977. Complete Bouguer gravity anomaly map by D.M. Kulik, 1975

MAP LOCATION



INDEX SHOWING TOPOGRAPHIC QUADRANGLE MAPS (NUMBERED) AND SOURCES OF GEOLOGIC MAPPING

1. Blue Miner Lake
2. Grizzly Lake
3. Upper Slide Lake
4. Cache Creek
5. Turquoise Lake
6. Crystal Peak
7. Darwin Peak
8. Ouzel Falls
9. Bull Creek
10. Granite Falls
11. Doubletop Peak
12. Tosi Peak

CORRELATION OF MAP UNITS

Qa Qt Ql	Holocene		
Qr	Holocene and Pleistocene		
Qg	Pleistocene		QUATERNARY
Unconformity			
Ts	Pliocene		
Unconformity			
Tt	Miocene		
Unconformity			
Tp	Eocene		TERTIARY
Unconformity			
Th — Thc	Paleocene		
Unconformity			
Kh			
Unconformity			
Kmv		Upper Cretaceous	
Ks			
Kb			
Kc			CRETACEOUS
Kf			
Kmt		Lower Cretaceous	
KJm	(Cross sections only)	Lower Cretaceous and Upper Jurassic	
Local Unconformity			
Js		Upper and Middle Jurassic	
Unconformity			JURASSIC
Jgs		Middle Jurassic	
Unconformity			
JTn			JURASSIC (?) AND TRIASSIC (?)
Unconformity			
Trc			TRIASSIC
Trd		Lower Triassic	
Pp			PERMIAN
PMta			PENNSYLVANIAN MISSISSIPPIAN
Unconformity			
Mm			
Unconformity			
Dd		Upper Devonian	DEVONIAN
Unconformity			
Ob			ORDOVICIAN
Unconformity			
€g		Upper Cambrian	
Unconformity			
€gv	(Cross sections only)	Middle Cambrian	CAMBRIAN
€f			
Unconformity			
pC: bmg, bg, gn, hgn, bgn			PRECAMBRIAN

LIST OF MAP UNITS

SURFICIAL DEPOSITS

Qa	Alluvium (Holocene)
Qt	Talus (Holocene)
Ql	Landslide deposits (Holocene)
Qr	Rock glaciers (Holocene and Pleistocene)
Qg	Glacial deposits (Pleistocene)
Ts	SHOOTING IRON FORMATION (PLIOCENE)
Tt	TEEWINOT FORMATION (MIOCENE)
Tp	PASS PEAK FORMATION (EOCENE)
Th	HOBACK FORMATION (PALEOCENE)
Thc	Conglomerate in lower part of Hoback Formation
Mz	MESOZOIC ROCKS, UNDIVIDED—Cross sections only
Kh	HAREBELL FORMATION (UPPER CRETACEOUS)
Kmv	MESAVERDE FORMATION (UPPER CRETACEOUS)
Ks	LENTICULAR SANDSTONE AND SHALE SEQUENCE AND COALY SEQUENCE (UPPER CRETACEOUS)
Kb	BACON RIDGE SANDSTONE (UPPER CRETACEOUS)
Kc	CODY SHALE (UPPER CRETACEOUS)
Kf	FRONTIER FORMATION (UPPER CRETACEOUS)
Kmt	MOWRY AND THERMOPOLIS SHALES, UNDIVIDED (LOWER CRETACEOUS)
KJm	CLOVERLY (LOWER CRETACEOUS) AND MORRISON (?) (UPPER JURASSIC) FORMATIONS, UNDIVIDED
Js	SUNDANCE FORMATION (UPPER AND MIDDLE JURASSIC)
Jgs	GYPSUM SPRING FORMATION (MIDDLE JURASSIC)
JTn	NUGGET SANDSTONE (JURASSIC (?) AND TRIASSIC (?))
Trc	CHUGWATER FORMATION (TRIASSIC)
Trd	DINWOODY FORMATION (LOWER TRIASSIC)
Pp	PHOSPHORIA FORMATION AND RELATED STRATA (PERMIAN)
PMta	TENSLEEP SANDSTONE AND AMSDEN FORMATION, UNDIVIDED (PENNSYLVANIAN AND MISSISSIPPIAN)
Mm	MADISON LIMESTONE (MISSISSIPPIAN)
Dd	DARBY FORMATION (UPPER DEVONIAN)
Ob	BIGHORN DOLOMITE (ORDOVICIAN)
€g	GALLATIN LIMESTONE (UPPER CAMBRIAN)
€gv	GROS VENTRE FORMATION (MIDDLE CAMBRIAN)
€f	FLATHEAD SANDSTONE (MIDDLE CAMBRIAN)
€	CAMBRIAN ROCKS, UNDIVIDED—Cross sections only

bmg	Biotite-muscovite granite
bg	Biotite gneiss
gn	Granitic gneiss
hgn	Biotite-hornblende gneiss
	Serpentinite
bgn	Biotite gneiss
pC	Precambrian rocks, undivided

EXPLANATION

- CONTACT—Showing dip; dashed where approximately located, dotted where concealed
- HIGH-ANGLE FAULT—Dashed where approximately located, dotted where concealed. Bar and ball on downthrown side, showing dip. Hachures show silicification, with or without magnetite and (or) hematite, in Precambrian rocks only
- THRUST OR REVERSE FAULT—Dashed where approximately located, dotted where concealed. Sawteeth on upper plate
- FOLD AXES—Showing trace of axial surface. Dashed where approximately located, dotted where concealed
  - Anticline
  - Syncline
  - Monocline
- STRIKE AND DIP OF BEDS
  - 30 — Inclined; if no value, shows direction of dip only. Queried(?) where uncertain
  - Horizontal
  - Vertical
  - 70 — Overturned
- STRIKE AND DIP OF FOLIATION IN PRECAMBRIAN ROCKS
  - 70 — Inclined
  - Vertical
  - Attitude of foliation (cross sections only)
- Cu — PROSPECT PIT—Cu, copper stain
- 190 — GRAVITY CONTOURS—Contour interval 5 mGal
- GRAVITY STATION