Preliminary Geologic Map
of the
SOUTH PASS
1:100,000 Quadrangle
Fremont and Sweetwater Counties, Wyoming

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July, 2005

Wyoming State Geological Survey
Open File Report 2005 - 5

Prepared in cooperation with the U.S. Geological Survey
2004 STATEMAP Grant award # 04HQAG0045

CONVERSION TABLE

METERS	FEET
1900	6234
2000	6562
2100	6890
2200	7218
2300	7546
2400	7874
2500	8202
2600	8530
2700	8858
2800	9186

To convert meters to feet multiply by 3.2808

To convert feet to meters multiply by 0.3048

DECLINATION DIAGRAM

2002 Magnetic declination (MN) is based on the center of the map. Diagram is approximate.

ADJOINING MAPS

1	2	3
4		5
6	7	8

1 Pinedale
2 Lander
3 Rattlesnake Hills
4 Farson
5 Bairoil
6 Rock Springs
7 Red Desert Basin
8 Rawlins

SCALE 1:100 000

KILOMETERS: 1 0 1 2 3 4 5 6 7 8 9 10

MILES: 1 0 1 2 3 4 5

FEET: 5000 0 5000 10000 15000 20000 25000

CONTOUR INTERVAL 20 METERS

INDEX TO 1:24,000-SCALE MAPS

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

1 Anderson Ridge
2 South Pass City
3 Atlantic City
4 Radium Springs
5 Lewiston Lakes
6 Barras Springs
7 Happy Spring
8 Soap Holes
9 Pacific Springs
10 Dickie Springs
11 Continental Peak
12 Circle Bar Lake
13 Picket Lake
14 Sulphur Bar Spring
15 Olson Springs
16 Lost Creek Reservoir
17 Rock Cabin Spring
18 Joe Hay Rim
19 Bob Jack Well
20 John Hay Reservoir
21 Five Fingers Butte
22 Five Fingers Butte NE
23 Cyclone Draw
24 Osborne Draw
25 Monument Ridge
26 Freighter Gap
27 The Pinnacles
28 Buffalo Hump Basin
29 Luman Rim
30 Bush Lake
31 Lost Creek Lake
32 Eagles Nest Draw

MAP UNITS

PHANEROZOIC

QUATERNARY

- Qal — Alluvium
- Qc — Colluvium
- Qls — Landslide debris
- Qt — Terrace, pediment, and gravel deposits
- Qs — Sand dunes

TERTIARY

- Tcb — Miocene (?) Circle Bar beds
- Tbc — Miocene-Pliocene (?) boulder conglomerate
- Tsp — Miocene-Pliocene [(?) late Oligocene-early Miocene] South Pass Formation
- Tsr — Miocene [(?) late Oligocene-early Miocene] Split Rock Formation
- Twr — Oligocene [(?) upper Eocene] White River Formation
- Tip — Eocene Ice Point Conglomerate
- Twb — Eocene Wagon Bed Formation
- Tb — Eocene Bridger Formation
- Tg — Eocene Green River Formation
  - Tgl — Laney Shale Member of the Green River Formation
  - Tgw — Wilkins Peak Member of the Green River Formation
  - Twc — Cathedral Bluffs Tongue of the Wasatch Formation
  - Tgt — Tipton Tongue and Tipton Shale Member of the Green River Formation
  - Twn — Niland Tongue of the Wasatch Formation
  - Tglu — Lumen Tongue of the Green River Formation
- Tc — Crooks Gap Conglomerate
- Tw — Eocene Wasatch Formation (main body)
- Tbs — Eocene Battle Spring Formation
- Tfu — Paleocene Fort Union Formation

MESOZOIC

- Kmv — Upper Cretaceous Mesa Verde Formation
- Kc — Upper Cretaceous Cody Shale
- Kf — Upper Cretaceous Frontier Formation
- Kmr — Upper Cretaceous Mowry Shale
- Kcv — Lower Cretaceous Cloverly Formation
- Js — Jurassic Sundance Formation
- Jn — Jurassic/Triassic Nugget Sandstone
- ₮cd — Triassic Chugwater & Lower Triassic Dinwoody Formations undivided

PALEOZOIC/MESOZOIC

- PMu — Paleozoic and Mesozoic units undivided

PALEOZOIC

- Pp — Permian Phosphoria Formation
- ℙt — Pennsylvanian Tensleep Sandstone
- ℙa — Pennsylvanian Amsden Formation
- Mm — Mississippian Madison Limestone
- Ob — Ordovician Bighorn Dolomite
- Ꞓg — Cambrian Gallatin Limestone
- Ꞓgv — Cambrian Gros Ventre Formation
- Ꞓf — Cambrian Flathead Sandstone

PRECAMBRIAN

PROTEROZOIC

Intrusive Igneous Rocks

- md — mafic dikes, 1880-2060 Ma

ARCHEAN

Intrusive Igneous Rocks

- g — Granite and granite pegmatite, 2545 ± 30 Ma, includes South Pass pluton and Sweetwater granite
- gd — granodiorite, 2630 ± 20 Ma, includes Louis Lakes batholith and Lewiston Lakes pluton
- td — tonalite

South Pass Greenstone Belt Metasedimentary and Metaigneous Rocks

- mdg — Miners Delight Formation metagreywacke, 2.8 Ga
  - mds — graphitic schist within the Miners Delight Formation
  - mdo — mafic amphibolite within the Miners Delight Formation
  - mdm — mixed member within the Miners Delight Formation
  - mdb — marble within the Miners Delight Formation
  - mdd — metadacite within the Miners Delight Formation
- rmg — Roundtop Mountain Greenstone
- gmf — Goldman Meadows Formation (including iron formation)
- dsm — Diamond Springs Formation

Gneiss Complex

- gn — gneiss complex

Map Symbols

- Rock unit contact
- Fault
- Thrust fault (serrations on upper plate)
- Anticline
- Overturned anticline
- Syncline
- Overturned syncline
- Structure projected beneath younger units
- Shear zone
- Foliation with inclination
- Vertical foliation
- Layering with inclination
- Quartz vein
- Breccia

Details of geologic units are printed in a separate text.