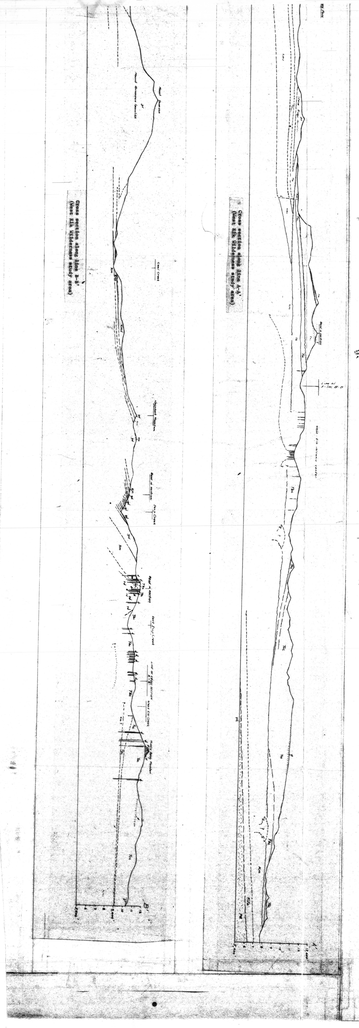
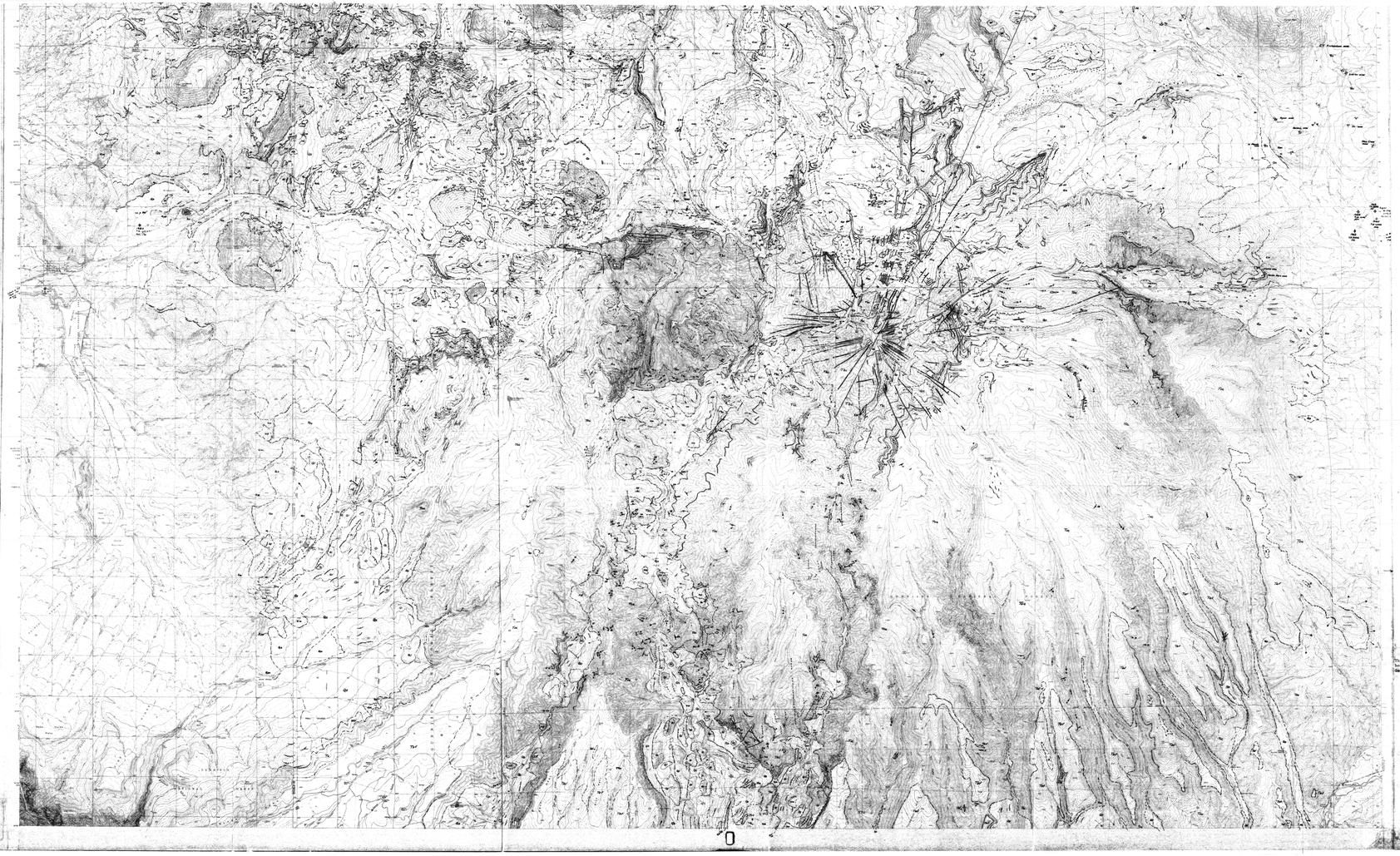




vent areas. Includes some volcaniclastic facies

| | |
|---|---|
| gd | Laccoliths, sills, and dikes of dacitic, rhyodacitic, granodioritic, and quartz monzonitic composition that intrude sedimentary rocks north of the West Elk volcanic field |
| rp | Rhyodacite plug(?) intruding altered, pyritized rock on Sheep Mountain |
| rd | Pretrusive(?) bodies of light-gray hornblende dacite-rhyodacite in the West Elk Breccia. May represent both hypabyssal intrusions and volcanic domes. Similar in texture and composition to many of the laccoliths in the Smith Fork drainage basin (Mount Owen, Slidedown, Interhaven, Sand Mountain, and other laccoliths) |
| r | Rhyolite--Includes a rhyolite plug or dome(?) at Buck Hollow, rhyolitic sills along Soap Creek and in West Elk Canyon, and a felsite plug(?) at the head of Smooth Canyon |
| d | Dikes--Undifferentiated dikes of andesitic to rhyodacitic composition |
| Tw | WASATCH FORMATION (EOCENE AND PALEOCENE) |
| sh | Shale--Stratigraphic position uncertain |
| Toc | OHIO CREEK FORMATION (PALEOCENE)--Lower part locally may be of Cretaceous age |
| Kmv | MESAVERDE FORMATION (CRETACEOUS) |
| Km | MANCOS SHALE (CRETACEOUS) |
| Kdb | DAKOTA SANDSTONE AND BURRO CANYON FORMATIONS UNDIVIDED (CRETACEOUS) |
| Jm | MORRISON FORMATION (JURASSIC) |
| KJu | Dakota sandstone, Burro Canyon Formation, Morrison Formation, and Wanakah Formation undivided. May include the Entrada sandstone at base. Unit shown only on cross section A-A' |
| p€ | Precambrian crystalline basement rocks undivided |

Contact--Dashed where approximately located or inferred

Approximate margin of lava flows, debris and mudflows, and landslides. Not everywhere mapped

Fault--Dashed where inferred. Bar and ball on downthrown side

Fractures--

Syncline showing trace of troughline and direction of plunge. Dashed where approximately located

Coal bed--Thickness of coal in feet measured at triangle. C indicates undetermined thickness of coal

Landslide scarp, slump block, or tension fissure at head of landslide or torera block

Moraine or glacial drift

Altered rock--Includes solfataric zones in West Soap Canyon, pyritized rock on Sheep Mountain, Coal Mountain, the West Elk center area, and elsewhere. Many small areas not shown

Strike and dip of sedimentary rocks

Horizontal beds

Strike and dip of layered volcaniclastic rocks

Strike and dip of lava flow

Approximate direction and inclination of dip of volcanic layers and sedimentary rocks

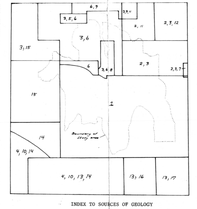
Arrow indicates longitudinal direction of mass movement (talus stream, debris, and mudflows)

Unconformity--Major unconformities between sedimentary rock units shown only on cross sections Prominent unconformities in volcanic rocks not everywhere mapped

Breccia--Pretrusive or vent breccias. Not everywhere mapped

Prospect--C indicates prospect on coal bed

Adit

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

SCALE 1:48 000

1 0 1 2 3 MILES

1 0 1 2 3 KILOMETERS

PLATE I

GEOLOGIC MAP AND CROSS SECTIONS OF THE WEST ELK WILDERNESS STUDY AREA, COLORADO