

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES MAP MF-2363

Version 1.0

Pamphlet accompanies map

GEOLOGIC MAP OF THE GRAND JUNCTION QUADRANGLE, MESA
COUNTY, COLORADO

By

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SCALE 1:24 000

CONTOUR INTERVAL 20 FEET

DOTTED LINES REPRESENT 10-FOOT CONTOURS

NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base from U.S. Geological Survey, 1962; photorevised 1973.

Polyconic projection. 1927 North American Datum.

10,000-foot grid based on Colorado coordinate system, central zone.

1,000-meter Universal Transverse Mercator grid ticks, zone 12.

Geology south of the Colorado River mapped by
Robert Scott and William Hood in 1998 and 1999.

Geology north of the Gunnison River mapped by
Paul Carrara in 1998 and 1999.

Digital compilation by Kyle Murray in 2000.

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LIST OF MAP UNITS

SURFICIAL UNITS

Artificial-fill deposits

Artificial fill (latest Holocene)

Alluvial deposits

Youngest alluvium deposited by the Colorado River (Holocene)

Youngest alluvium deposited by the Gunnison River (Holocene)

Alluvium deposited by tributary streams (Holocene and late Pleistocene)

Valley-fill deposit (Holocene and late Pleistocene)

Oldest alluvium deposited by the Colorado River (Holocene and latest
Pleistocene)

Terrace alluvium of the Gunnison River, undivided (late to middle Pleistocene)

Terrace alluvium 30 of the Colorado River (middle Pleistocene)

Terrace alluvium 60 of the Colorado River (middle Pleistocene)

Terrace alluvium 60 of the Gunnison River (middle Pleistocene)

Terrace alluvium of the Colorado River over terrace alluvium of the Gunnison
River (middle Pleistocene)

Terrace alluvium 100 of the Colorado River (middle Pleistocene)
Terrace alluvium 170 of the Colorado River (early Pleistocene)
Alluvial and colluvial deposits
Young fan-alluvium and debris-flow deposits (Holocene)
Alluvium and colluvium, undivided (Holocene and late Pleistocene)
Pediment deposit of Walker Field (late? Pleistocene)
Old alluvial-slope deposit (late Pleistocene)
Local gravel deposits (middle Pleistocene)
Local gravel deposits over terrace alluvium 30 of the Colorado River (middle Pleistocene)
Eolian and colluvial deposits
Eolian sand and sheetwash deposits (Holocene and late Pleistocene)
Eolian sand and sheetwash deposits over terrace alluvium 30 of the Colorado River (Holocene to middle Pleistocene)
Colluvial deposits
Younger landslide deposits (latest Holocene)
Colluvium (Holocene and late Pleistocene)
Older landslide deposits (Holocene to middle Pleistocene)

BEDROCK UNITS

Mancos Shale (Upper Cretaceous; Campanian to Cenomanian)
Dakota Formation (Upper and Lower? Cretaceous; Cenomanian and Albian?)
Burro Canyon Formation (Lower Cretaceous; Albian and Aptian)
Morrison Formation (Upper Jurassic)
Brushy Basin Member (Tithonian and Kimmeridgian)
Salt Wash Member (Kimmeridgian)
Tidwell Member (Kimmeridgian to latest Oxfordian)
Wanakah Formation (Middle Jurassic; Callovian)
Entrada Formation (Middle Jurassic; Callovian)
"Board beds" unit
Slick Rock Member
Kayenta Formation (Lower Jurassic; Pliensbachian and Sinemurian)
Wingate Sandstone (Lower Jurassic; Pliensbachian to Hettangian)
Chinle Formation (Upper Triassic)
Meta-igneous gneiss and migmatitic meta-sedimentary rocks, undivided (Early Proterozoic)

Contact—Dashed where approximately located. Hachures on the low side of a scarp terrace where contact is coincident with terrace scarp
Normal fault—Dashed where approximately located; dotted where concealed.
Bar and ball on downthrown side. Arrow shows relative motion in cross section
Anticline axial trace—Dashed where approximately located; dotted where concealed
Strike and dip of bedding
Inclined
Calculated from outcrop pattern using three-point solutions
Gravel pit (g) or bentonite quarry—Approximately located

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descriptive purposes only and does not imply
endorsement by the U.S. Geological Survey

This map was produced on request, directly from
digital files, on an electronic plotter

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<http://geology.cr.usgs.gov/pub/mf-maps/mf-2363>