

LIST OF MAP UNITS

The complete description of map units and references are in the accompanying Author's Notes

SURFICIAL DEPOSITS

HUMAN-MADE DEPOSITS

af Artificial fill (upper Holocene)

ALLUVIAL DEPOSITS

Qa Channel and flood-plain alluvium (upper Holocene)

Qt₁ Terrace alluvium one (Holocene and upper Pleistocene)

Qt₂ Terrace alluvium two (upper Pleistocene)

Qt₃ Terrace alluvium three (upper middle Pleistocene)

Qau Alluvium, undivided (Holocene and Pleistocene)

Qsw Sheetwash (Holocene and upper Pleistocene)

Qf₁ Alluvial fan deposit one (Holocene and upper Pleistocene)

Qf₂ Alluvial fan deposit two (upper? Pleistocene)

Qf₃ Alluvial fan deposit three (upper? Pleistocene)

Qf Alluvial fan deposit, undivided (Holocene to upper? Pleistocene)

Op₁ Older alluvium one (Pleistocene)

Op₂ Older alluvium two (Pleistocene)

Op₃ Older alluvium three (Pleistocene)

Op₄ Older alluvium four (Pleistocene)

MASS-WASTING DEPOSITS

Qc Colluvium (Holocene to upper Pleistocene)

EOLIAN DEPOSITS

Qes Eolian sand (Holocene to upper Pleistocene)

BEDROCK UNITS

Twm Wall Mountain Tuff (late? Eocene)

Tlc Conglomerate of Larkspur Butte (late Eocene)
(described in text, but not shown on map)

Tda Dawson Arkose (middle? to early Eocene)

TKd Denver Formation (early Paleocene)

TKdu Dawson Formation, undivided (Eocene to Upper Cretaceous)
(Shown on cross section only)

Kl Laramie Formation (Upper Cretaceous)
(Shown on cross section only)

Kf Fox Hills Sandstone (Upper Cretaceous)
(Shown on cross section only)

Kp Pierre Shale (Upper Cretaceous)

Kn Niobrara Formation (Upper Cretaceous)

Kcgg Carlile Shale, Greenhorn Limestone, and Graneros Shale,
undivided (Upper Cretaceous)
(Shown on cross section only)

Kd Dakota Sandstone (Lower Cretaceous)

Kpu Purgatoire Formation (Lower Cretaceous)
(Shown on cross section only)

Jmr Morrison Formation and Ralston Creek Formation, undivided
(Upper Jurassic)

TrPl Lykins Formation (Lower Triassic? and Upper Permian)

Ply Lyons Sandstone (Permian)

PpPl Fountain Formation and Glen Eyrie Formation, undivided
(Lower Permian and Pennsylvanian)

Mwc Williams Canyon Member of the Leadville Limestone (Mississippian)

Om Manitou Formation (Lower Ordovician)

Cs Sawatch Sandstone (Cambrian)

Ypp Pikes Peak Granite (Neoproterozoic)

MAP SYMBOLS

Contact—Approximately located

Fault—Dashed where approximately located; dotted where concealed.

Strike and dip of bedding

Inclined bedding—Showing direction and angle of dip

Horizontal bedding

Overtured bedding

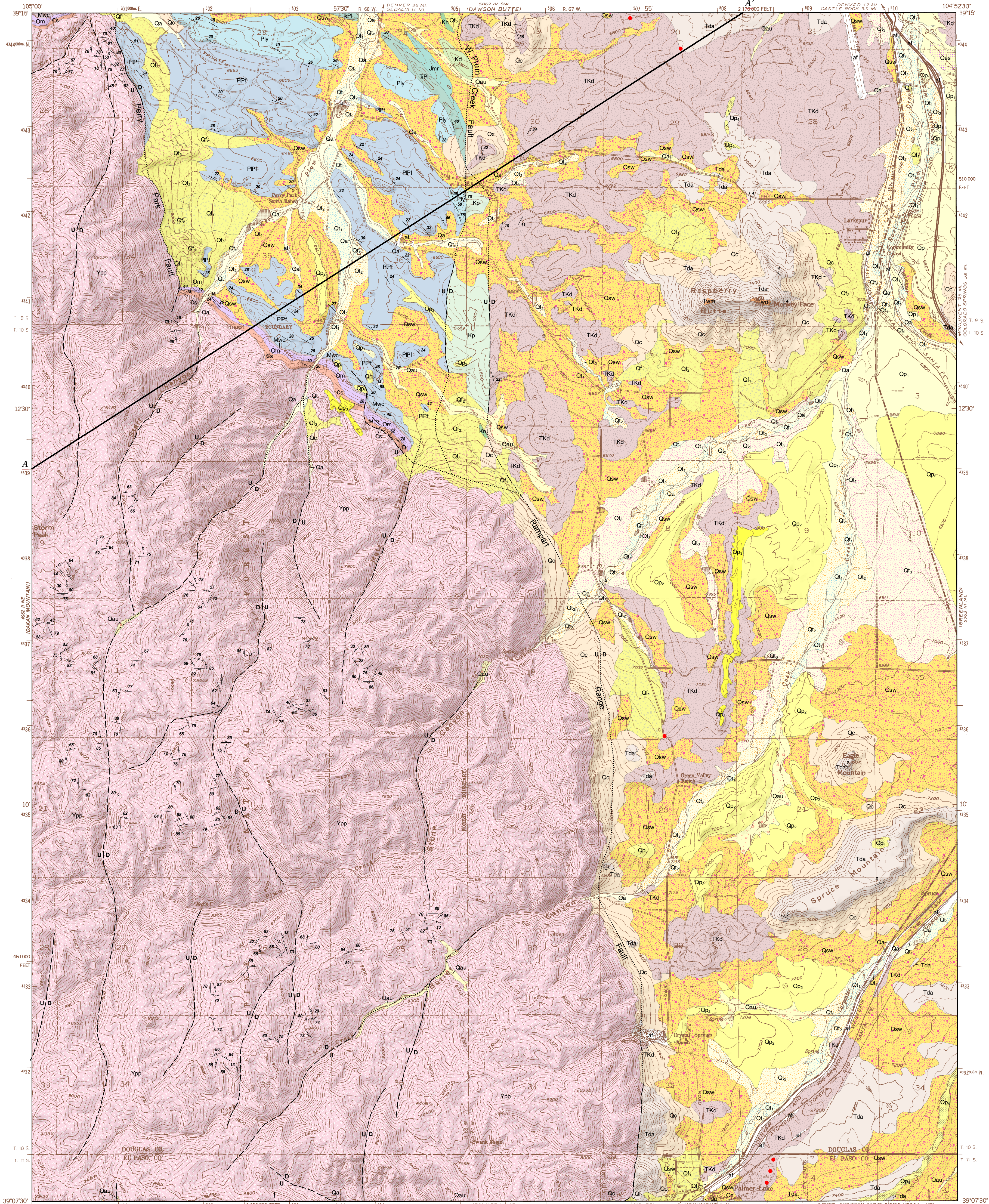
Strike and dip of fracture

Inclined fracture—Showing direction and angle of dip

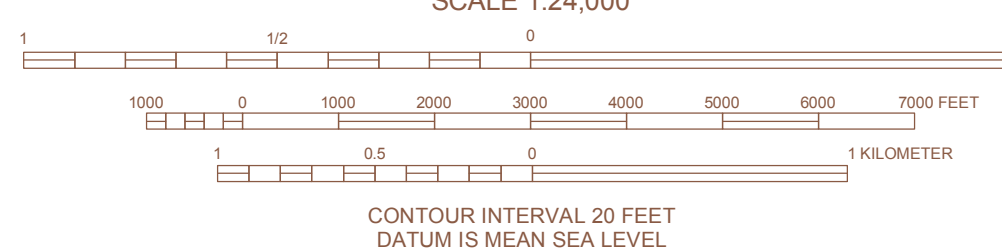
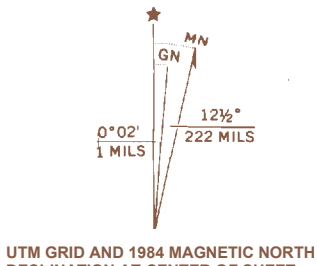
Vertical fracture

Paleosol

Alignment of cross section



Base from U.S. Geological Survey.
Polyconic projection, 1927 North American Datum, 10,000-foot grid
based on Colorado coordinate system, central and south zones.
1,000-meter Universal Transverse Mercator grid ticks, zone 13



1	2	3
4	5	6
7	8	9

Adjoining 7.5' quadrangles

- 1 Devils Head
- 2 Dawson Butte
- 3 Castle Rock South
- 4 Dulcan Mountain
- 5 Greenland
- 6 Mount Deception
- 7 Palmer Lake
- 8 Monument

GEOLOGIC MAP OF THE LARKSPUR QUADRANGLE, DOUGLAS AND EL PASO COUNTIES, COLORADO

By Jon Thorson, Jay Temple, Alan Busacca, and William Berg
2008



Bill Ritter Jr., Governor
State of Colorado
Harris D. Sherman, Executive Director
Department of Natural Resources
Vincent Matthews
State Geologist and Director
Colorado Geological Survey