



Base from U.S. Geological Survey, 1916.

0 2 4 6 8 MILES

Geology mapped in 1968-1970 by Paul K. Theobald, Jr.,
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EXPLANATION

Qal

Alluvium of the active flood plains
Largely sand of local derivation along
minor streams mixed with cobble gravel
derived from the Park Range to the
east along the Little Snake River

Qls

Landslide and slump debris
Conspicuously developed east of Forti-
fication and Fourmile Creeks, where
relief is maintained on incompetent
claystones by resistant mesa caps of
volcanic debris

Qs

Eolian sand
Mapped only where extensive dune fields exhibit some surface
morphologic features. Transverse dunes predominate

Qtp

Qtr

Qts

Terrace deposits

May include Pliocene deposits

Qtp, boulder terrace deposits: Composed largely of angular
blocks from the volcanic rocks of the western part of the
Elkhead Range, to the east. Confined to the area along a
east of Fourmile and Fortification Creeks. Several levels
are evident, all with a pronounced slope away from the Elk-
head Range. Forms the resistant caprock of the mesas where
present

Qtr, cobble-gravel terrace deposits: Caps mesas of at least
four levels south of the Little Snake River. Composed
largely of well-rounded igneous and metamorphic cobbles
derived from the Park Range to the east but includes some
pebbles and cobbles from the volcanics in the Elkhead Range
and a few angular blocks of local derivation

Qts, terrace sand or gravelly sand: Composed of locally
derived arkosic sand. Mapped only where conspicuously
developed along edges of alluvium on tributaries to the
Little Snake River

Ta

Andesite and basalt dikes

Dark-brown to black aphanitic to porphyritic dikes peripheral
to the volcanic centers of the Elkhead Range. Intrusive into
the Browns Park Formation

Tbp

Browns Park Formation

White to gray tuffaceous sandstone and tuff. Preserved as
remnants of valley fill just to the north and to the south
of the area mapped

Tcb

Cathedral Bluffs Tongue of the Wasatch Formation
Variegated claystone and sandstone of fluvial origin. Coarse
arkoses abundant throughout contain a heavy-mineral suite
rich in monazite and, locally, gold

Tt

Tipton Tongue of the Green River Formation
Drab brown to gray fossiliferous sandstone and papery shale.
Locally includes several coarse arkose lenses and one or
more claystone beds. Thickens abruptly from a single thin
sandstone at the south edge of the map on Housel Gulch to
several hundred feet along Dry Gulch by addition of lacus-
trine sediments at the top of the section. Arkose contain
a heavy-mineral suite rich in monazite and, locally, gold

Twa

Arkosic tongue of the Wasatch Formation
Variegated claystone and sandstone lithologically similar to
the Cathedral Bluffs Tongue. Arkoses abundant throughout
are composed almost entirely of material derived from a
granite. The base is well defined by a persistent conglom-
eratic arkose. The heavy-mineral suite is rich in monazite
and, locally, gold

Twc

Claystone member of the Wasatch Formation
Predominantly variegated claystones with minor fine-grained
sandstone lenses. Shale-pebble conglomerate is locally
common in the eastern part of the mapped area

Tfu

Fort Union Formation

Gray to white sandstone, siltstone, and claystone with two
lignitic sandstone beds at the top and chert-pebble con-
glomerate lenses common at the base

Kl

Lance Formation

Drab gray siltstone and claystone in the extreme northeast
corner of the mapped area

Contact
Dashed where approximately located

Fault
Dashed where approximately located; dotted where concealed

Tailings from placer mine

PRELIMINARY GEOLOGIC MAP OF THE NORTH HALF OF THE CRAIG QUADR. E, MOFFAT COUNTY, COLORADO

By
Paul K. Theobald, Jr.

TERTIARY

CRETACEOUS