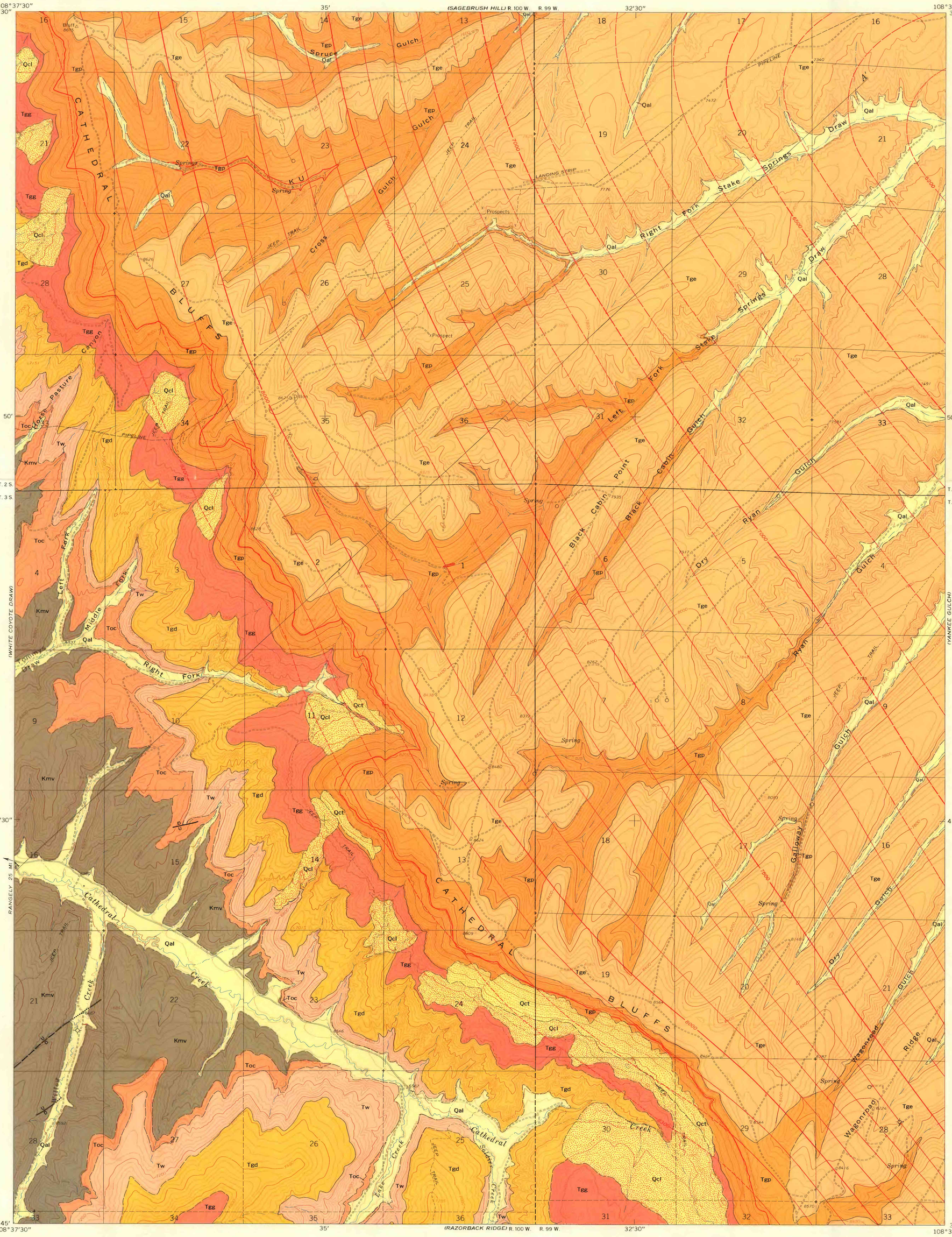
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

GEOLOGIC QUADRANGLE MAP
BLACK CABIN GULCH QUADRANGLE, COLORADO
GQ-812



Base by U.S. Geological Survey, 1964

Geology mapped in 1966

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

APPROXIMATE MEAN DECLINATION, 1969

COLORADO
QUADRANGLE LOCATION

EXPLANATION

QUATERNARY — *Pleistocene and (or) Holocene*

Qal — Alluvial deposits
Chiefly flood-plain, stream-channel and fan deposits

Qct, Qcl — Colluvial deposits
Qcl, *chiefly landslide, creep, and slopewash deposits*
Qct, *chiefly talus and slopewash deposits*

UNCONFORMITY

TERTIARY — *Eocene*

Tge, Tgp, Tgp, Tgg, Tgd — Green River Formation

Tge,[1] *Evacuation Creek Member. Brown and gray siltstone and very fine grained sandstone; some light-gray marlstone. Siltstone and sandstone are tuffaceous and argillaceous. Weathers to rounded hills and steep slopes. Only lower part is exposed*

Tgp, *Parachute Creek Member. Gray and tan platy to massive marlstone and dark-gray to blue-gray oil shale; numerous thin gray and yellow-brown tuff beds. Uppermost 90 feet contains tuffaceous beds that show plastic flowage and are associated with tuffaceous dikes. Lowermost 90 feet contains two yellow-brown silty tuffaceous very fine grained sandstone beds and some very thin algal limestone beds. Contains Mahogany oil-shale bed (red line). Weathers to cliffs and steep slopes. Thickness (on outcrop) 1,000± feet*

Tgg, *Garden Gulch Member. Dark-gray flaky and papery shale, gray and yellow-brown siltstone and very fine grained sandstone, gray oil shale, and marlstone. Weathers to steep slopes and is subject to landsliding. Thickness (on outcrop) 650± feet*

Tgd, *Douglas Creek Member. Gray and brown ostracodal shale and limestone; some gray very fine grained sandstone, gray mudstone, and carbonaceous shale. Weathers to series of slopes and ledges. Thickness (on outcrop) 450–500 feet*

Paleocene

Tw — Wasatch Formation[2]
Gray and brown very fine- to medium-grained sandstone, gray, greenish-gray, and red mudstone and shale; some thin conglomerate; carbonaceous shale, and lignitic coal. Weathers to ledges and steep slopes. Thickness (on outcrop) 200–350 feet

UNCONFORMITY(?)

Toc — Ohio Creek(?) Formation
Light-gray very fine grained ledge-forming sandstone, gray and green mudstone and shale; a few lenses of conglomerate. Weathers to ledges and steep slopes. Thickness (on outcrop) 80–300 feet

UNCONFORMITY

CRETACEOUS — *Upper Cretaceous*

Kmv — Mesaverde Formation
Gray and tan very fine- to medium-grained sandstone, dark-gray and greenish-gray mudstone and shale, a few thin beds of carbonaceous shale and lignitic coal. Weathers to series of massive ledges and steep slopes. Only upper part of formation exposed

Contact
Dashed where approximately located

Fault
Dashed where inferred; dotted where concealed. U, *upthrown side;* D, *downthrown side*

8000

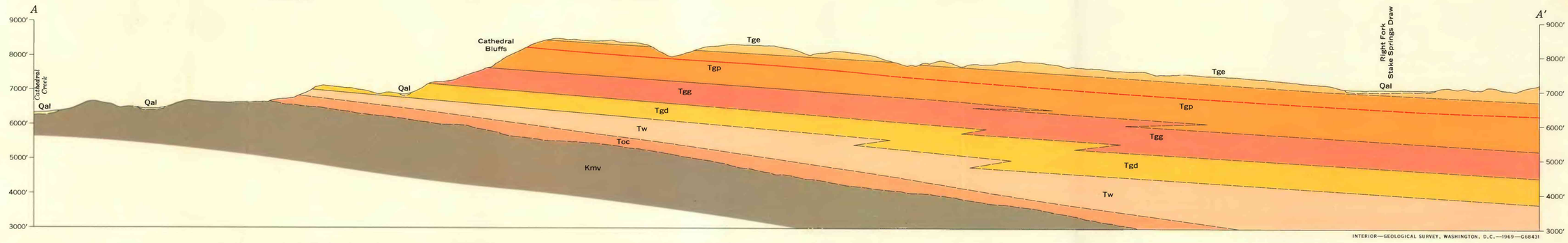
Structure contours
Drawn on top of Mahogany oil-shale bed. Dashed where approximately located; short dashed where datum is eroded. Contour interval 100 feet

Core hole

Dry hole

[1]Although these strata are here assigned to the Evacuation Creek Member of the Green River Formation, as they commonly have been here and elsewhere in the Piceance Creek Basin, they are lithologically more similar to and probably equivalent to the Uinta Formation as used in the Uinta Basin (see H. D. Curry, 1964, Oil-content correlation of Green River oil shales, Uinta and Piceance Creek Basins: Intermountain Assoc. Petroleum Geologists Guidebook, 13th Ann. Field Conf., p. 169–171).

[2]The Wasatch Formation is commonly assigned to early Eocene age in many areas; however, it is here considered to be of Paleocene and Eocene age, based on work done along the southern margin of the Piceance Creek basin (see J. R. Donnell, 1968, Paleocene and lower Eocene units in the southern part of the Piceance Creek Basin, Colorado: U.S Geol. Survey Bull. 1274-M).



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GEOLOGIC MAP OF THE BLACK CABIN GULCH QUADRANGLE, RIO BLANCO COUNTY, COLORADO

By
W. B. Cashion

1969

For sale by U.S. Geological Survey, price $1.00