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

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GEOLOGIC MAP OF THE RIFLE QUADRANGLE, GARFIELD COUNTY, COLORADO

by
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1997

CORRELATION OF MAP UNITS

Artificial fill	Alluvial deposits	Alluvial and colluvial deposits	Colluvial deposits	Eolian deposit	Eolian deposit over other surficial deposits							
af	Qfp	Qfy	Qac	Qc	Qdy	Qsw	Qls	Qlo	Qsw Qlo	Qlo	Qlo Qdy	Qlo Qfy	Qlo Qlo	Qlo Qfo	Qlo Qdi	Qlo Qtl	Qlo Qp
	Qty	Qfo	Qp		Qdi												
	Qto				Qdo												
	Qtl																

LOCAL ANGULAR UNCONFORMITY

Tgo

Tw	Twd
	Tws
	Twm
	Twa

MINOR LOCAL ANGULAR UNCONFORMITY

Kmv	Kwf	Kwfu
	Ki	Kir
		Kiz
		Kic

Holocene	Pleistocene	QUATERNARY
Eocene		TERTIARY
Eocene and Paleocene		
Upper Cretaceous		CRETACEOUS

ROCK UNITS

af	Artificial fill
Qfp	Flood plain and stream channel deposits
Qty	Younger terrace alluvium
Qto	Older terrace alluvium
Qtl	Oldest terrace alluvium
Qfy	Younger fan-alluvium and debris-flow deposits
Qac	Undivided alluvium and colluvium
Qfo	Older fan-alluvium and debris-flow deposits
Qp	Pediment deposits
Qc	Colluvium, undivided
Qdy	Debris-flow deposits
Qsw	Sheetwash deposits
Qls	Landslide deposits
Qlo	Talus deposits
Qdi	Intermediate debris-flow deposits
Qdo	Older debris-flow deposits
Qlo	Loess
Tgo	Green River Formation, Anvil Points Member
Tw	Wasatch Formation
Twd	Doodlebug Gulch member
Tws	Shire Member
Twm	Molina Member
Twa	Atwell Gulch Member
Kmv	Mesaverde Group rocks undivided
Kwf	Williams Fork Formation
Kwfu	Unnamed sandstone unit
Ki	Iles Formation
Kir	Rollins Sandstone Member
Kiz	Cozzette Sandstone Member
Kic	Corcoran Sandstone Member
Km	Mancos Shale

Contact—solid where definite, dashed on map where approximately located, dashed in cross section to show stratal attitudes at depth

Limit of overturned strata in the Williams Fork Formation

Stream-terrace and debris-flow scarps mantled by loess—separates contiguous terrace alluvium and debris-flow deposits of the same map unit, but at different elevations and of different ages; hachures are on the side of the lower (younger) deposit

Syncline axial trace—dotted where concealed

Strike and dip of beds
- Inclined
- Overturned

Gas well—showing name of drilling company and total depth (TD) in feet. Example: Walsoh Oil; 3320 TD

Dry hole—showing name of drilling company and total depth (TD) in feet. Example: Walsoh Oil; 3320 TD

Mapped, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1945–1948 Field check 1952

Polyconic projection 1927 North American Datum
10,000-foot grid based on Colorado coordinate system central zone
1000 meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

Topographic base from U.S. Geological Survey, 1952

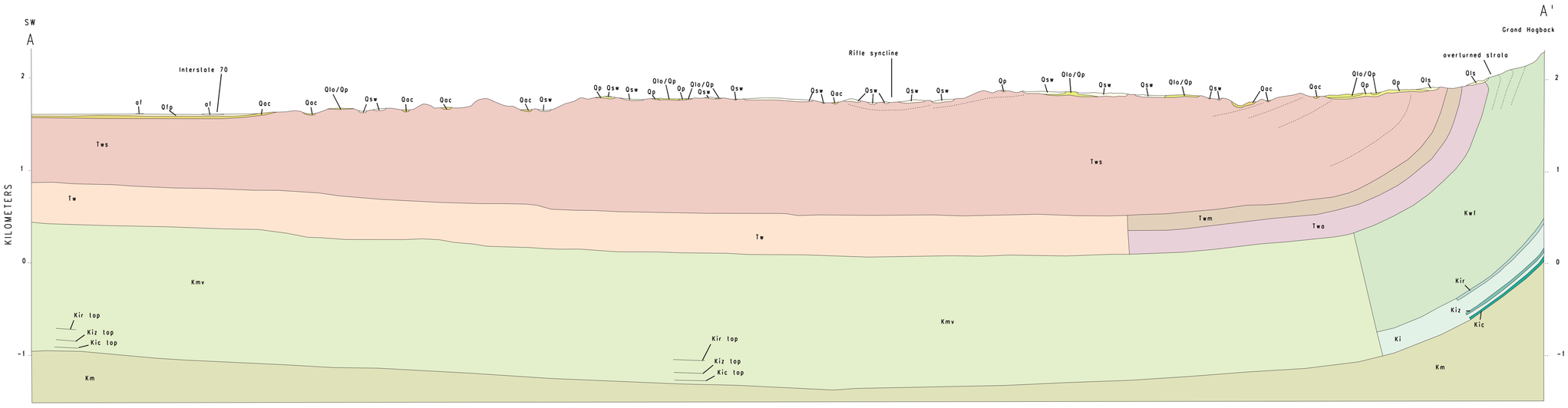
Surficial Geology mapped in 1992-1993 by R. R. Shroba
Bedrock Geology mapped in 1996 by R. B. Scott

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

COLORADO
QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1979 and other source data. This information not field checked. Map edited 1982

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic code.