DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

OPEN-FILE REPORT

81-553

CORRELATION OF MAP UNITS

Qal, Ql	Holocene	QUATERNARY	
Qg	Pleistocene		
Tw	Eocene and Paleocene	TERTIARY	
Kt, Kf, Kn, Ks, Kmb, Kcb, Km	Upper Cretaceous	CRETACEOUS	

DESCRIPTION OF MAP UNITS

Qal ALLUVIUM (HOLOCENE) – Minor gravel, and sand and silt in some washes

Ql LANDSLIDE DEPOSIT (HOLOCENE) – Slumped block of Castlegate Sandstone and Blackhawk Formation occurring on west wall of Calf Canyon

Qg UNCONSOLIDATED AND SEMICONSOLIDATED DEPOSITS (PLEISTOCENE) – Pediment deposits of gravel and sand veneering planar surfaces commonly standing above adjacent terrain

Tw WASATCH FORMATION (EOCENE AND PALEOCENE) – Variegated shale and siltstone, and brown sandstone; pebble conglomerate at base. Contact with underlying unit unconformable

Kt TUSCHER FORMATION (UPPER CRETACEOUS) – Brown to very light gray, medium-grained sandstone, and green to olive siltstone and silty shale. Mapped thickness ranges from about 240 ft (73 m) to about 820 ft (250 m)

Kf FARRER FORMATION (UPPER CRETACEOUS) – Brown, fine- to medium-grained sandstone and greenish-gray to gray silty shale; carbonaceous in parts. Contact with overlying unit indefinite or approximate. Mapped thickness ranges from about 240 ft (73 m) to about 800 ft (244 m)

Kn NESLEN FORMATION (UPPER CRETACEOUS) – Brown and very light gray, very fine-grained sandstone, and moderately dark-gray to black shale and silty shale, commonly carbonaceous. Includes the following coal zones in ascending order: Palisade (p), Ballard (not shown due to cartographic limitations), and Chesterfield (ch). Lines indicating coal zones located about median to respective zones; dashed where zones obscured. Palisade and Chesterfield persist throughout map area; Ballard absent in Nash Wash canyon area and extreme eastern part of map area. Individual beds are lenticular and persist not more than a few miles and range in thickness from less than a foot to as much as 7 ft. Coal is high volatile B and C bituminous, rank generally increases downward. Sulfur content ranges from 0.5% to 0.7% and ash content ranges from 9.5% to 19.0% on basis of available analyses. Contact of Neslen with overlying unit gradational. Mapped thickness ranges from about 200 ft (61 m) to about 400 ft (122 m)

Ks SEGO SANDSTONE (UPPER CRETACEOUS) – Brown to very light gray, very fine to fine-grained, cross-laminated, cliff-forming sandstone, and some sandy or silty shale. Contact with overlying unit abrupt, distinct in most places. Mapped thickness ranges from about 120 ft (37 m) to about 240 ft (73 m)

Kmb BUCK TONGUE OF MANCOS SHALE (UPPER CRETACEOUS) – Dark-gray shale and silty shale. Contact with overlying unit gradational. Mapped thickness ranges from about 120 ft (30 m) to about 200 ft (61 m)

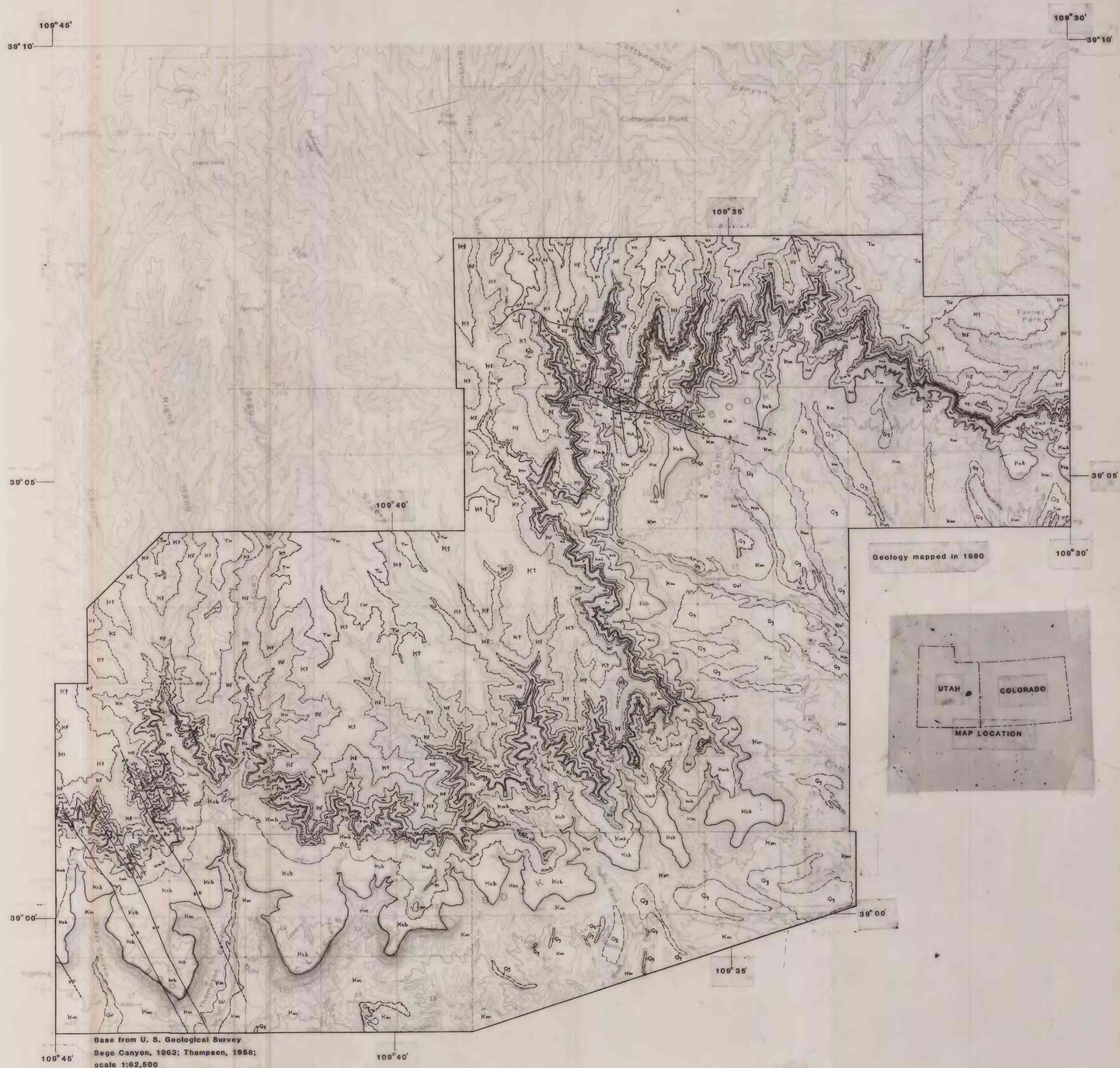
Kcb CASTLEGATE SANDSTONE AND BLACKHAWK FORMATION, UNDIVIDED (UPPER CRETACEOUS) – Brown, very fine grained laminated, cliff-forming sandstone, some gray shale, and very sparse impure limestone. Contact with overlying unit abrupt and almost everywhere obscured. Mapped thickness ranges from about 100 ft (30 m) to about 340 ft (104 m)

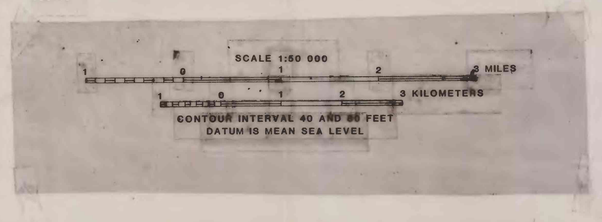
Km MANCOS SHALE (UPPER CRETACEOUS) – Dark gray nonresistant shale. Contact with overlying unit gradational. Only upper part mapped.

CONTACT – Long dashed where approximately located, short dashed where indefinite, inferred, or gradational

U/D FAULT – Short dashed where inferred, dotted where concealed. U: upthrown side; D: downthrown side. All faults are normal with vertical to steeply dipping planes

BURNED COAL ZONE – Major coal bed or beds within zone have burned producing reddened, baked, and fused rock





GEOLOGIC MAP OF PARTS OF SEGO CANYON AND THOMPSON QUADRANGLES, UTAH, SHOWING COAL ZONES AND ADJACENT ROCKS

By

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