



DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



- EXPLANATION**
- Qal**
Alluvium
Silt, sand, and some interbedded gravel; 1 to 35 feet thick; forms alluvial plains and low terraces along Coal Bed, Bug, Montezuma, and Monument Canyons.
- Ql**
Loess
Well-sorted red silt and very fine sand, largely wind deposited, reworked partly by water; 0 to 25 feet thick; forms agricultural soil on uplands.
- UNCONFORMITY**
- Kd**
Dakota sandstone
Light-brown and yellowish-brown sandstone with abundant plant fossils; interbedded, lenticular, gray carbonaceous claystones and coal; thin conglomeratic sandstone at base locally; locally 80 feet thick; crops out at crest of "rim rock" cliff which separates upland from canyons.
- UNCONFORMITY**
- Kbc**
Burro Canyon formation
Light-colored conglomeratic sandstone; interbedded greenish lenticular sandstone; silicified sandstone and limestone near top locally; 60 to 160 feet thick; forms face of "rim rock" cliff which separates upland from canyons.
- UNCONFORMITY**
- Jmb, Jmw, Jms**
Morrison formation
Brushy Basin member, Jmb, variegated mudstone, some sandstone and conglomerate lenses; 200 to 260 feet thick; forms slope above steep-walled inner canyons; generally covered with landslides or colluvium. Westwater Canyon member, Jmw, yellowish- and greenish-gray lenticular sandstone and interbedded green mudstone; 90 to 130 feet thick; forms intermediate slopes below gentle slope formed by the Brushy Basin and above the steep cliff formed by the Salt Wash. Salt Wash member, Jms, light-colored lenticular sandstone interbedded with red mudstone; 380 to 440 feet thick; forms series of steep cliffs and narrow benches of inner canyon; massive sandstone lenses near the middle of the member locally contain uranium-vanadium deposits.
- UNCONFORMITY**
- Js**
Summerville formation
Orange-pink even-bedded sandstone, interbedded with reddish-brown siltstone and mudstone; base not exposed; forms steplike slope below steep canyon walls formed by the Salt Wash member of the Morrison formation.
- Contact**
(Dashed where inferred or indefinite)
- Approximate strikes and dip of beds**
(Owing to low dips and lenticular nature of beds, attitudes were determined from preliminary structure contours drawn on the base of the Dakota sandstone; dip in degrees)
- Horizontal beds**
(Dip less than 1/4°, determined as above)
- Structure contour**
6000
Drawn on base of Dakota sandstone; short dashes indicate projection above land surface. Contour interval 100 feet. Datum mean sea level.
- Adit**
(Uranium-vanadium mine)
- Small open cut or prospect**
(Uranium-vanadium deposit)

Pleistocene and Recent
Upper Cretaceous
Lower Cretaceous
Upper Jurassic
San Rafael group

QUATERNARY
CRETACEOUS
JURASSIC

Mapped by the Geological Survey 1954
Topography by multiplex methods from
aerial photographs taken 1953

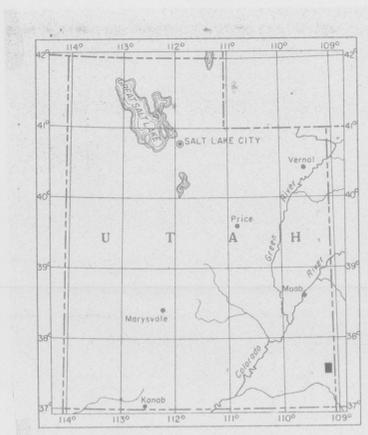


Geology mapped 1954-55.

PRELIMINARY GEOLOGIC MAP OF THE VERDURE 4SW QUADRANGLE, SAN JUAN COUNTY, UTAH

by

Frank G. Lesure and Fredrick Stugard, Jr.



INDEX MAP OF UTAH SHOWING AREA OF THIS REPORT

(200)
T6
Nov 992