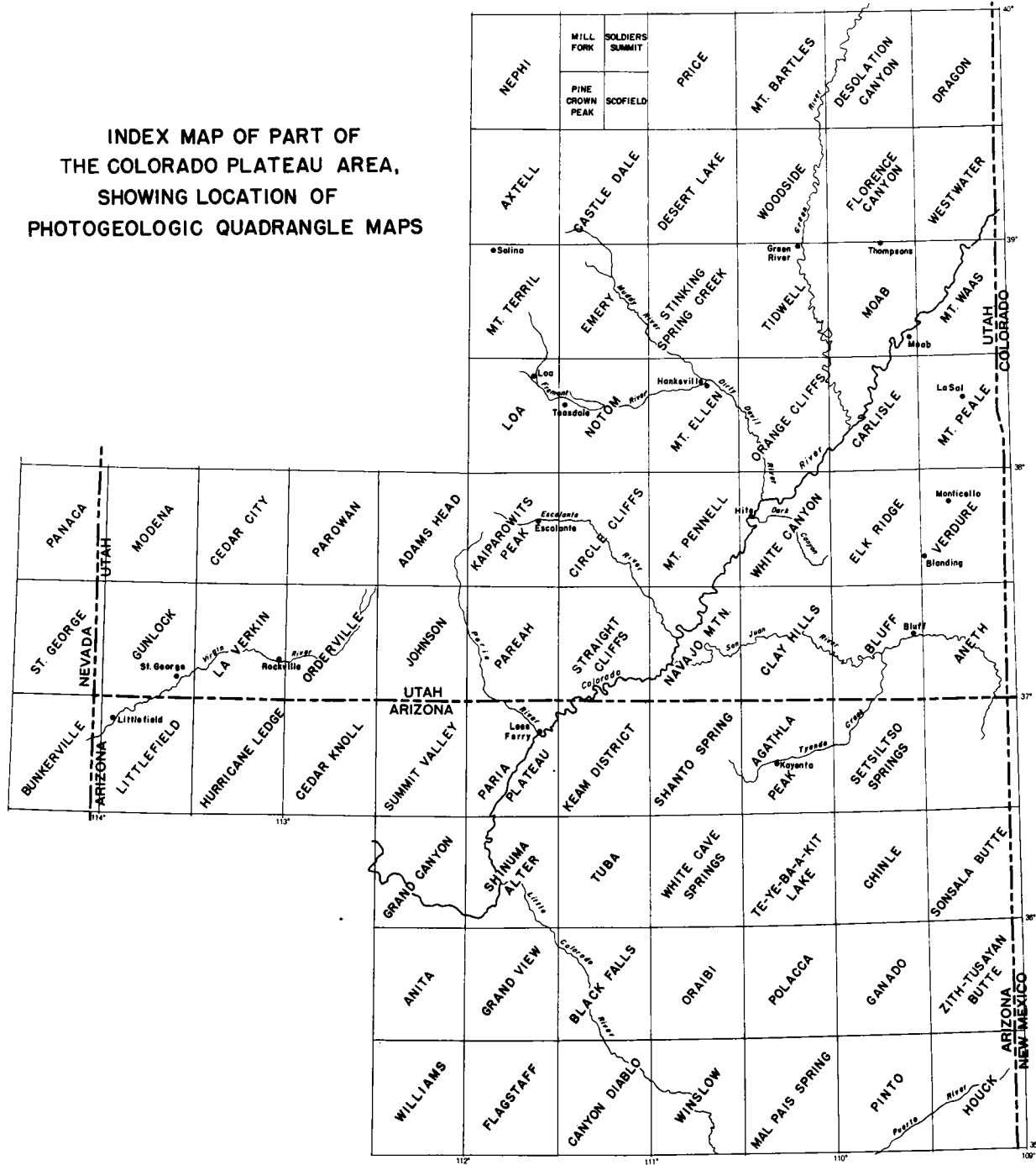


## GEOLOGY AND MINERALOGY

<u>Distribution (Series A)</u>	<u>No. of copies</u>
Exploration Division, Grand Junction Operations Office. . . .	3
(Including one film positive of map)	
Division of Raw Materials, Washington . . . . .	2
Division of Raw Materials, Salt Lake City . . . . .	1
U. S. Geological Survey:	
Fuels Branch, Washington. . . . .	4
Geophysics Branch, Washington . . . . .	2
Conservation Division, Washington . . . . .	1
P. C. Patton, Denver. . . . .	1
A. L. Brokaw, Grand Junction. . . . .	4
(Including two film positives of map)	
J. F. Smith, Jr., Denver. . . . .	1
W. A. Fischer, Washington . . . . .	4
(Including one film positive of map)	
TEPCO, Denver . . . . .	1
TEPCO, RPS, Washington. . . . .	6
(Including master)	

INDEX MAP OF PART OF  
THE COLORADO PLATEAU AREA,  
SHOWING LOCATION OF  
PHOTOGEOLOGIC QUADRANGLE MAPS





EXPLANATION

- Alluvium
- Terrace deposits (?)
- Undifferentiated sand, residual mantle and slope wash
- QUATERNARY**
- Mancos shale
- Upper part, undifferentiated, Kmu; Ferron sandstone member, Kmf; Tununk shaft member, Kmt
- Upper Cretaceous**
- Dakota sandstone
- Upper Lower Cretaceous**
- Probable equivalent of Burro Canyon formation
- Upper unit, Kbu; lower unit, Kbl
- Lower Cretaceous**
- Morrison formation
- Brushy Basin shale member, Jmb; Salt Wash sandstone member, Jms
- Upper Jurassic**
- Summerville formation
- Curtis formation
- JURASSIC**

- Contact  
Can be located within 30 feet horizontally.
- Contact  
Can be located within 30 to 200 feet horizontally.
- Contact  
Cannot be located accurately, probable error greater than 200 feet horizontally.
- Probable contact
- Conspicuous or resistant bed within a formation  
May be traceable only locally.
- Fault  
Dashed where approximately located  
U, upthrown side; D, downthrown side  
Questioned where probable
- Concealed fault
- Strike and dip of beds  
Based on field measurement.
- Approximate strike and dip of beds  
Based on photo-interpretation.
- Strike of approximately vertical joints  
Based on photo-interpretation
- Linear feature uninterpretable on photograph  
May be geologically significant.
- Dry hole
- Prospect pit or open cut
- Spring
- Primary road
- Secondary road
- Trail
- Abandoned railroad
- Power line

Note: The lower unit of the probable equivalent of the Burro Canyon formation is believed to be the Buckhorn conglomerate of Stokes, and the upper unit, the Cedar Mountain shale of Stokes (Geol. Soc. America Bull., vol. 55, 1944).

North of Little Grand Fault and west of longitude 110°05'W, the Dakota sandstone may be present although it could not be recognized on the photographs.

Base map compiled by U. S. Geological Survey from vertical aerial photographs. The aerial photographs used for photogeologic interpretation were taken in July and August 1952.

4	3	2
5	6	7
12	11	10
13	14	15

TIDWELL QUADRANGLE

PHOTOGEOLOGY BY V. H. SABLE  
SCALE 1:24,000  
NOVEMBER 1954

Roads as classified in this map series are as follows: Primary roads are maintained and graded, traversable by two-wheel-drive vehicles; secondary roads are traversable possibly by two-wheel-drive vehicles; trails are not traversable by four-wheel-drive vehicles except locally. Where other information is lacking, roads are classified by their appearance on aerial photographs.

Stratigraphic column for this area modified from unpublished section by L. C. Craig, U. S. Geol. Survey Oil and Gas Div. Map OM 131, 1950; U. S. Geol. Survey Bull. 208, 1940; and U. S. Geol. Survey Bull. 552, 1938. Geographic and geologic field data from Geol. Soc. America Bull., vol. 55, pp. 961-992, 1944. General Highway Maps, Grand County, Utah, by Utah State Road Comm. and U. S. Dept. of Agriculture, 1940; and Bull. 209 and 462.

This map has been compiled mainly from photogeologic data but has not been checked in the field; hence it has not had the benefit of thorough evaluation with respect to maps compiled entirely from field data.

This map is preliminary and has not been edited or reviewed for conformity with U. S. Geological Survey standards and nomenclature.