DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
ATOMIC ENERGY COMMISSION

PHOTOGEOLOGIC MAP, ORANGE CLIFFS-9
UTAH-GARFIELD AND WAYNE COUNTIES

TRACE ELEMENTS MEMORANDUM REPORT 732

54-57

EXPLANATION

Jn	Navajo sandstone	JURASSIC (?)
Jk	Kayenta formation	JURASSIC (?)
Jw	Wingate sandstone	JURASSIC (?)
Trc	Chinle formation (Upper)	TRIASSIC
Trs	Shinarump conglomerate (Upper)	TRIASSIC
Trm	Moenkopi formation (Lower)	TRIASSIC
Pcu	Cutler formation: Unnamed unit, Pcu; White Rim sandstone member, Pcw; Organ Rock tongue, Pcor; Cedar Mesa sandstone member, Pcc	PERMIAN
Pcw		
Pcor		
Pcc		

Contact
Can be accurately located within 30 feet horizontally

Contact
Can be approximately located within 30 to 200 feet horizontally

Contact
Cannot be located accurately; probable error greater than 200 feet

Probable or doubtful contact

Fault
Dashed where approximately located U, upthrown side; D, downthrown side

Probable or doubtful fault

Approximate strike and dip of beds
Based on photo-interpretation

Inferred strike and dip of beds
Based on photo-interpretation of areas where bedding is obscure

Conspicuous resistant bed within a formation
May be traceable only locally

Strike of approximately vertical joints
Based on photo-interpretation

Uninterpretable linear feature on photograph
May be geologically significant

County boundary
Approximate location

Trail

Note: The uppermost separable unit of the Cutler formation overlies the White Rim sandstone member or its lateral equivalent. This unnamed unit, lithologically similar to the Organ Rock tongue, is indistinct photogeologically, but its approximate horizon has been extended from points where the unit is known within the quadrangle. The unit is inseparable on aerial photographs from the bleached lower beds of the Moenkopi formation in Elaterite Basin and vicinity, but is at least locally present as reported near Big Water Spring (Bull. 951). Its presence is doubtful where the White Rim sandstone is considerably thickened in the southern part of Big Water Canyon.

PLANIMETRIC BASE MAP COMPILED BY U. S. GEOLOGICAL SURVEY FROM VERTICAL AERIAL PHOTOGRAPHS BY RADIAL-TEMPLET METHODS.

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

4	3	2	1
5	6	7	8
12	11	10	9
13	14	15	16

ORANGE CLIFFS QUADRANGLE

TRUE NORTH
MAGNETIC NORTH
15°

PHOTOGEOLOGY BY W. H. CONDON
SCALE 1:24,000
1 MILE
OCTOBER 1953

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. When other information is lacking, roads are classified by their appearance on aerial photographs.

Stratigraphic column for this area modified from U. S. Geol. Survey Bull. 951, 1946. Geographic and geologic field data also from U. S. Geol. Survey Bull. 951, 1946.

Maps of this series have been compiled mainly from photogeologic data but have not been checked in the field; hence they have not had the benefit of thorough evaluation with respect to maps compiled entirely from field data.