DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

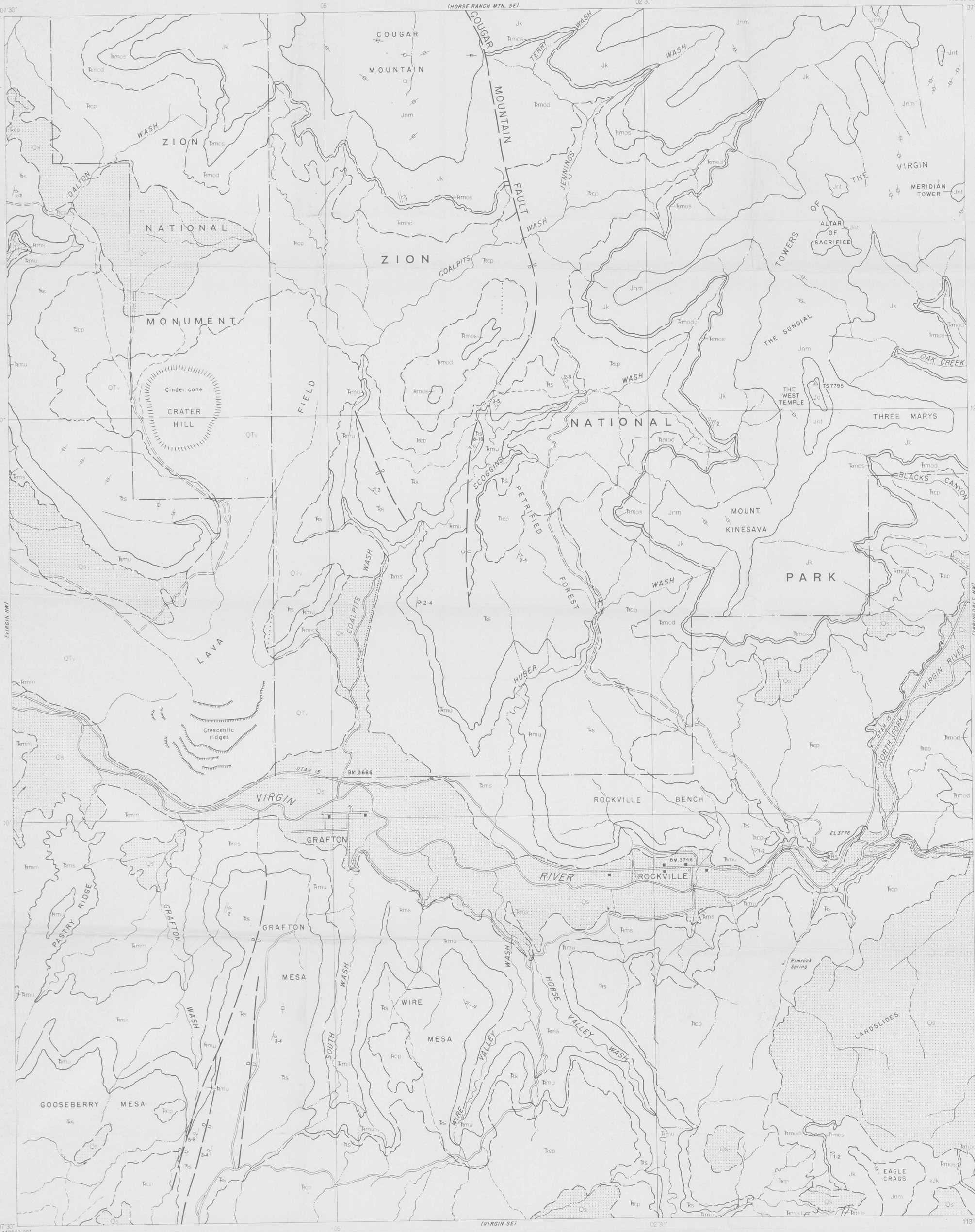
PREPARED IN COOPERATION WITH THE
U. S. ATOMIC ENERGY COMMISSION

PHOTOGEOLOGIC MAP, VIRGIN NE
UTAH - WASHINGTON COUNTY
TRACE ELEMENTS MEMORANDUM REPORT 907

(HORSE RANCH MTN. SW) (HORSE RANCH MTN. SE) (ORDERVILLE CANYON SW)

113°07'30" 05' 02'30" 113°00'00"
37°15'00" 12'30" 10' 07'30" 37°07'30"

(VIRGIN NW) (VIRGIN SW) (VIRGIN SE) (SPRINGDALE NW) (SPRINGDALE SW)



EXPLANATION

SEDIMENTARY ROCKS

Qs	Surficial deposits	QUATERNARY	
Jc	Carmel formation	Middle and Upper Jurassic	JURASSIC
Jnt / Jnm	Navajo sandstone Temple cap member, Jnt; massive sandstone unit, Jnm		
Jk	Kayenta formation		
Trmos / Trmod	Moenave formation Springdale sandstone member, Trmos; Dinosaur Canyon sandstone member, Trmod		JURASSIC(?) TRIASSIC(?)
Trcp	Petrified Forest member of the Chinle formation	Upper Triassic	TRIASSIC
Trs	Shinarump conglomerate		
Trmu / Trms / Trmm	Moenkopi formation Upper red member, Trmu; Shnabkaib member, Trms; Middle red member, Trmm	Lower and Middle (?) Triassic	

IGNEOUS ROCKS

QTv	Volcanic rocks	QUATERNARY and TERTIARY

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.

Fault
U, upthrown side; D, downthrown side. Approximately located; dotted where concealed. Questioned where probable.

3 Strike and dip of beds
Computed by photogrammetric methods.

2 Approximate strike and dip of beds
Based on photointerpretation.

Strike of approximately vertical joints
Based on photointerpretation.

Linear feature uninterpretable on photograph
May be geologically significant.

Irrigation ditch

National park and National monument boundary

Primary road

Secondary road

Trail

Base map compiled by U. S. Geological Survey from vertical aerial photographs.

The aerial photographs used for photogeologic interpretation were taken in October 1952, and 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.

NW NE SW SE
VIRGIN
15-MINUTE QUADRANGLE

TRUE NORTH
MAGNETIC NORTH

PHOTOGEOLOGY BY C. H. MARSHALL
SCALE 1:24,000
0 1 MILE
JUNE 1955

This preliminary report is distributed without editorial and technical review for conformity with official standards and nomenclature. It is not for public inspection or quotation.

Stratigraphic column for this area modified from Geol. Soc. America Mem. 61, 1954, and U. S. Geol. Survey Prof. Paper 220, 1950. Geographic and geologic field data from Utah Geol. and Mineralog. Survey, Guidebook to geology of Utah, No. 7, 1952; Prof. Paper 220; and U. S. Geol. Survey topographic map, Zion National Park, Utah, 1936.

This map has been compiled mainly from photogeologic data but has not been checked in the field.