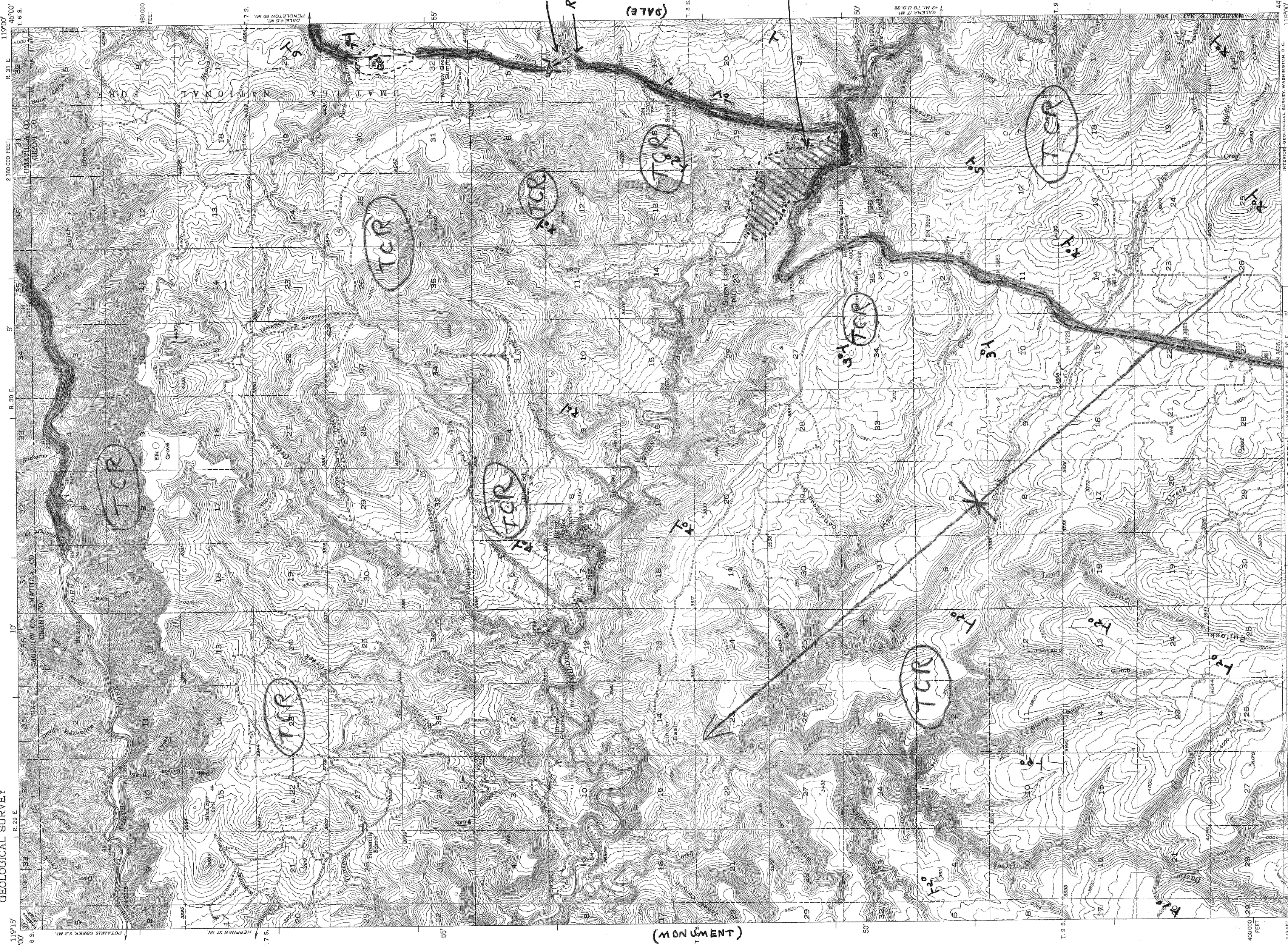


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BITTER QUADRANGLE
OREGON

15 MINUTE SERIES (TOPOGRAPHIC)
2,500,000 FEET
R. 31 E. 119°00' 45" W



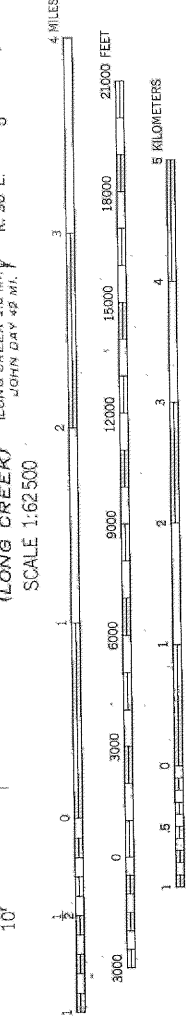
Geology BY
L F HINTZE
9 SEPT 52

Plotted from highway
Traverse. Secondary
roads too muddy to
traverse.
= Columbia River
Basalt along
Road.
Virtually the
entire quadrangle
is inferred to be
Columbia River Basalt
except for those
small areas
indicated

Rotten granite
Rotten metamorphics

Pre-Tertiary
Arg. life greenstones
volcanic agglomerates

ROAD CLASSIFICATION
Heavy-duty... Light-duty
Medium-duty... Unimproved dirt
U.S. Route
State Route



Maped, edited, and published by the Geological Survey
Control by USGS, USCGS, and OSHD
Topography from aerial photographs by multiple methods
Aerial photographs taken 1946. Flashed check 1950
Polyconic projection. 1927 North American datum.
10,000-foot grid based on Oregon coordinate system.
Dashed and lines indicate approximate location

FOR SALE BY U.S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BITTER, OREG.
N4445-W11900/15
EDITION OF 1965