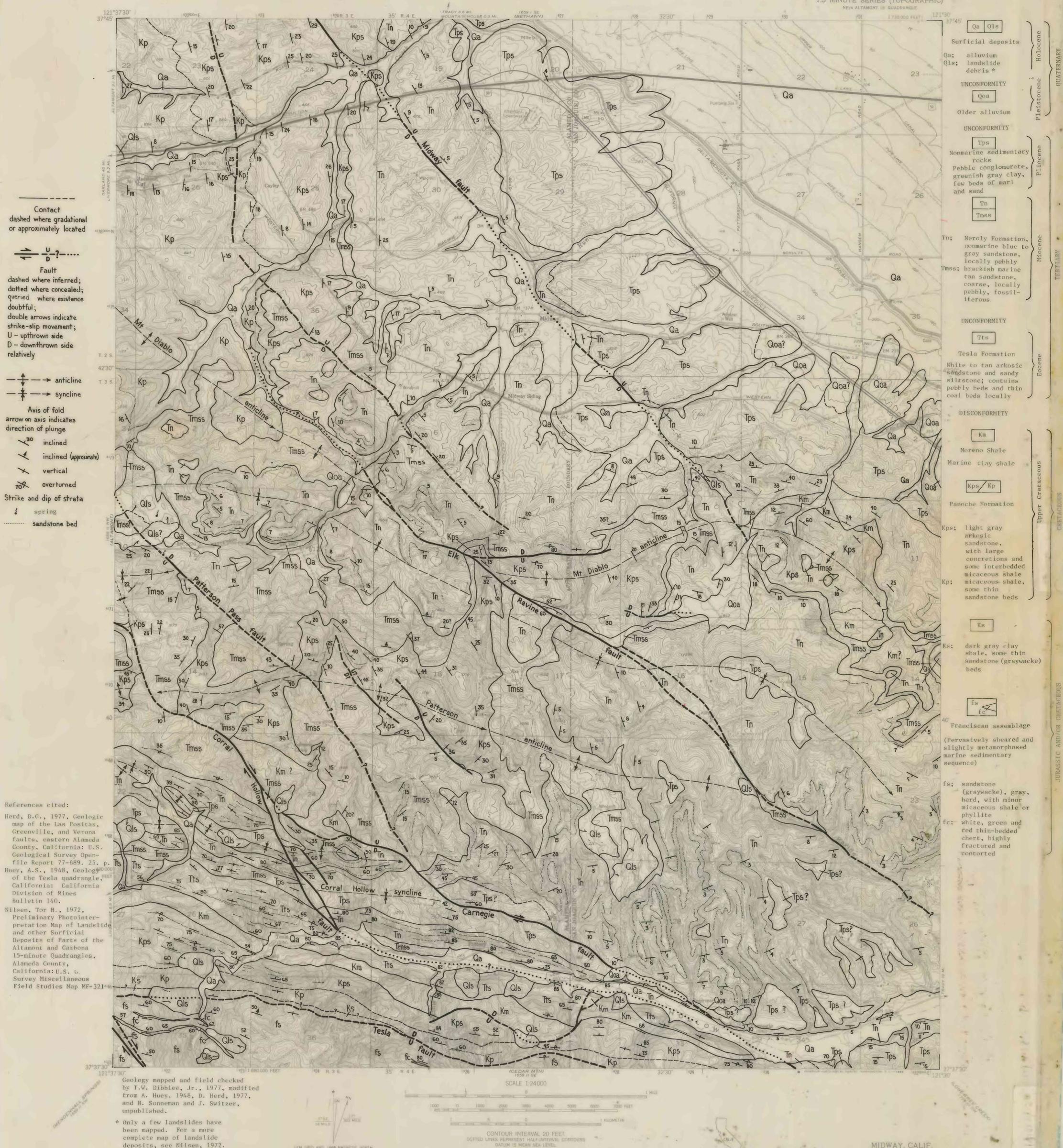


MIDWAY QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE 1/4 ALTAMONT 15 QUADRANGLE



Contact
dashed where gradational
or approximately located

Fault
dashed where inferred;
dotted where concealed;
questioned where existence
doubtful;
double arrows indicate
strike-slip movement;
U - upthrown side
D - downthrown side
relatively

Axis of fold
arrow on axis indicates
direction of plunge

Strike and dip of strata

↗ 30° inclined
↘ 30° inclined (approximate)
↕ vertical
↗ 70° overturned

○ spring
..... sandstone bed

Qa Qls
Surficial deposits
Qa: alluvium
Qls: landslide debris *

UNCONFORMITY
Qoa
Older alluvium

UNCONFORMITY
Tps
Nonmarine sedimentary
rocks
Pebble conglomerate,
greenish gray clay,
few beds of marl
and sand

Tn
Neroly Formation,
nonmarine blue to
gray sandstone,
locally pebbly
brackish marine
tan sandstone,
coarse, locally
pebbly, fossiliferous

Tmss
Tesla Formation
White to tan arkosic
sandstone and sandy
siltstone; contains
pebbly beds and thin
coal beds locally

UNCONFORMITY
Km
Moreno Shale
Marine clay shale

Kps/Kp
Panoche Formation
Kps: light gray
arkosic
sandstone,
with large
concretions and
some interbedded
micaceous shale
Kp: micaceous shale,
some thin
sandstone beds

Ks
Ks: dark gray clay
shale, some thin
sandstone (graywacke)
beds

fs
Franciscan assemblage
(Pervasively sheared and
slightly metamorphosed
marine sedimentary
sequence)

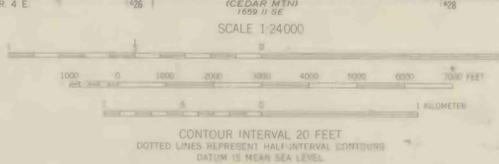
fc
fs: sandstone (graywacke), gray,
hard, with minor
micaceous shale or
phyllite
fc: white, green and
red thin-bedded
chert, highly
fractured and
contorted

Geological Time Scale:
Holocene
Pleistocene
Pliocene
Miocene
Eocene
Upper Cretaceous
Cretaceous
JURASSIC AND/OR CRETACEOUS

References cited:
Herd, D.C., 1977, Geologic map of the Las Positas, Greenville, and Verona faults, eastern Alameda County, California: U.S. Geological Survey Open-File Report 77-689. 25 p.
Huey, A.S., 1948, Geology of the Tesla quadrangle, California: California Division of Mines Bulletin 140.
Nilsen, Tor H., 1972, Preliminary Photointerpretation Map of Landslide and other Surficial Deposits of Parts of the Altamont and Carbona 15-minute Quadrangles, Alameda County, California: U.S. Geological Survey Miscellaneous Field Studies Map MF-321.

Geology mapped and field checked by T. W. Dibblee, Jr., 1977, modified from A. Huey, 1948, D. Herd, 1977, and H. Sonnemans and J. Switzer, unpublished.

* Only a few landslides have been mapped. For a more complete map of landslide deposits, see Nilsen, 1972.



PRELIMINARY GEOLOGIC MAP OF THE MIDWAY QUADRANGLE, ALAMEDA AND SAN JOAQUIN COUNTIES, CALIFORNIA
by
Thomas W. Dibblee, Jr.
1980

U.S. Geological Survey
OPEN-FILE REPORT
This report is preliminary and has not been edited or reviewed for conformity with Geological Survey Standards and nomenclature.