DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE REPORT 80-537

DUBLIN QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 LIVERMORE 15' QUADRANGLE

Contact
dashed where gradational or approximately located

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

anticline
syncline
Axis of fold
arrow on axis indicates direction of plunge

inclined
inclined (approximate)
vertical
overturned
Strike and dip of strata

sandstone bed
conglomerate bed

Surficial deposits

Qg; stream channel gravel and sand
Qa; alluvium
Qls; landslide debris*

Unconformity

Qoa
Older alluvium

Unconformity

Terrestrial sedimentary rocks

QTl; Livermore Gravel, reddish-gray pebble-cobble gravel, sand and clay
QTt; Tassajara Formation, greenish-gray clay, some sand and pebble gravel

Nonmarine sedimentary rocks

Tps
Pebble conglomerate, sandstone and greenish gray mudstone; locally contains a few thin marl beds

Marine sedimentary rocks

Tmss; light gray to tan sandstone, locally pebbly, calcareous and fossiliferous, minor siltstone beds
Tmsl; gray siltstone and clay shale, locally sandy
Tmsh; siliceous shale, brittle, weathers white
Tso; Sobrante Sandstone, tan, massive, fine-grained

Unconformity

Panoche Formation

Kp; clay shale, gray, micaceous, argillaceous to silty; minor thin sandstone beds
Kps; sandstone, tan, hard, arkosic, locally contains large concretions, unfossiliferous, minor interbedded shale
Kpc; conglomerate composed of cobbles of granitic and porphyritic rocks and quartzite in a matrix of tan arkosic sandstone, some interbedded sandstone

sp
Serpentinite, diabase, and quartz keratophyr

Holocene
Pleistocene ?
QUATERNARY
Pleistocene and/or Pliocene
TERTIARY AND/OR QUATERNARY
Pliocene
Miocene
TERTIARY
Upper Cretaceous
JURASSIC AND/OR CRETACEOUS

References cited

Hall, C.A., Jr., 1958, Geology and paleontology of the Pleasanton area, Alameda and Contra Costa Counties, California: Calif. Univ. Pubs. Geol. Sci., v. 34, no. 1, scale 1:62,500

Nilsen, Tor H., 1973, Preliminary Photointerpretation Map of Landslide and other surficial deposits of the Livermore and part of the Hayward 15-minute quadrangles, Alameda and Contra Costa Counties, California: U.S. Geological Survey Miscellaneous Field Studies Map MF-519.

Perkins, M.E., 1974 Geology and petrology of the East Bay outlier of the Great Valley Sequence, Alameda County, California: Calif. Univ., M.A. Thesis, Berkeley, California, unpublished

Geology mapped and field checked by Thomas W. Dibblee, Jr., 1977, modified from C.A. Hall, Jr., 1958, and M.E. Perkins, 1974 (Cretaceous sequence).

* Only a few landslides have been mapped. For a more complete map of landslide deposits, see Nilsen, 1973

SCALE 1:24 000
1 MILE
1 KILOMETER
CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

Dark purple tint indicates extension of urban areas in 1978
Purple tint indicates extension of urban areas

DUBLIN, CALIF.
NW/4 LIVERMORE 15' QUADRANGLE
N3737.5—W12152.5/7.5

PRELIMINARY GEOLOGIC MAP OF THE DUBLIN QUADRANGLE, ALAMEDA AND CONTRA COSTA 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