OPEN FILE REPORT
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LAUREL QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 LOS GATOS 15' QUADRANGLE

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

UNITS SOUTHWEST OF SAN ANDREAS FAULT

Qal / Qof / Qls
Surficial deposits
Qal, alluvium
Qof, older flood-plain deposits
Qls, landslide debris[1]

Qcu
Coastal terrace deposits, undiff.
Sand, gravel, and silt

Tp
Purisima Formation
Marine sandstone and siltstone

UNCONFORMITY

Tsc
Santa Cruz Mudstone of Clark (1966)
Marine silty to semi-siliceous mudstone; lower Plio. or up. Mio.

Tsm
Santa Margarita Formation
Shallow-water marine white arkosic friable sandstone; Upper Miocene

UNCONFORMITY

Tm
Monterey Formation
Marine light gray siliceous to silty shale, commonly foraminiferal; mid. Mio. (Luisian and Relizian Stages)

Tlo
Lompico Sandstone of Clark (1966)
Marine sandstone, middle Miocene

UNCONFORMITY

Tla
Lambert Shale
Marine light gray semi-siliceous to argillaceous shale; lower Miocene (Saucesian Stage)

Tvq / Tb / Tz
Sedimentary and volcanic rocks
Tvq, Vaqueros Sandstone
Tz, Zayante Sandstone; non-marine conglom. and red sandstone
Tb, basalt

Tsl / Tsr / Tst
San Lorenzo Formation
Tsl, undivided marine mudstone and shale;
Tsr, Rices Mudstone Member; siltstone and mudstone, contains glauconitic sandstone at and near base; Zemorrian and Refugian Stages
Tst, Twobar Shale Member; micaceous shale, minor thin sandstone; Narizian Stage, up. Eocene

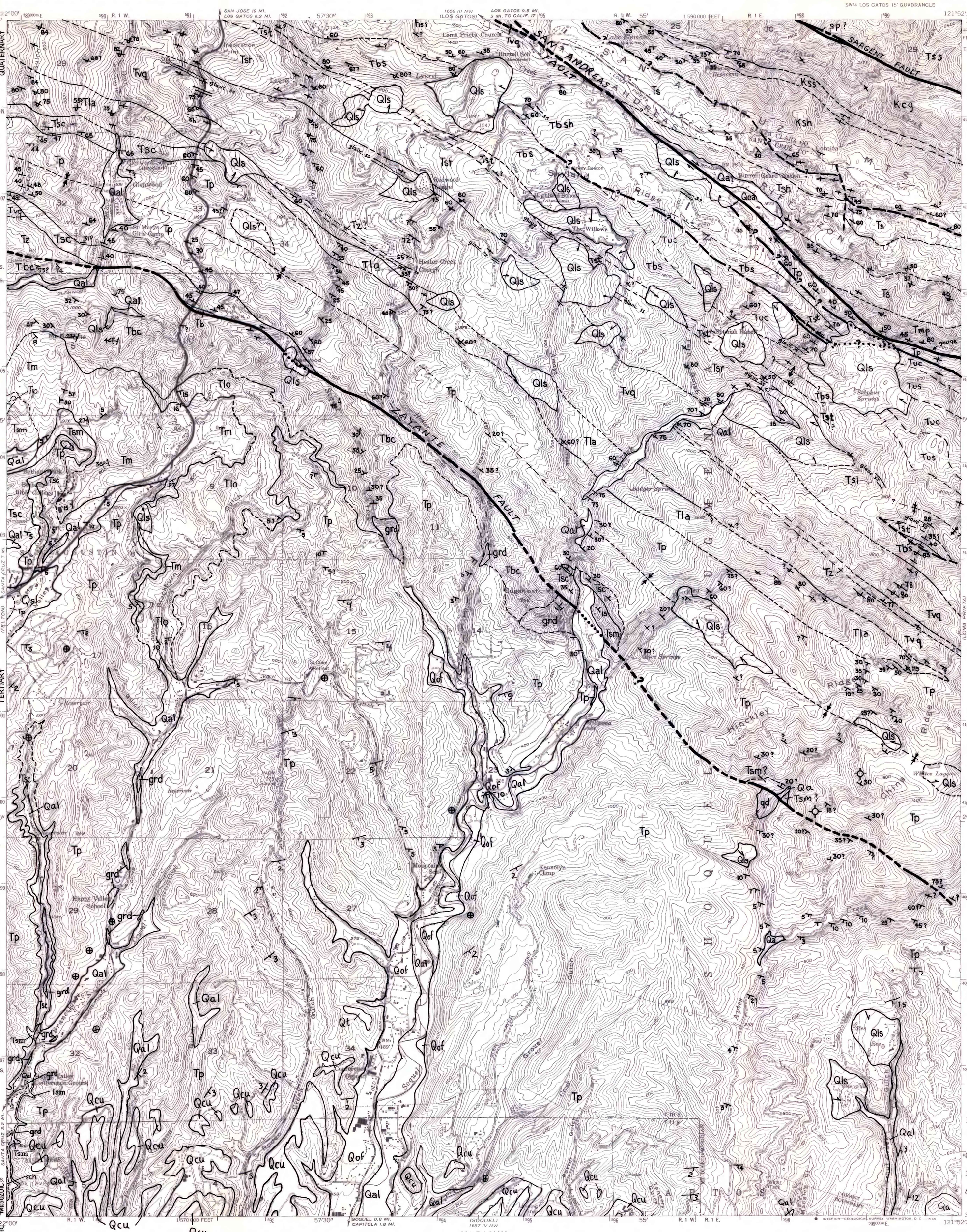
Tbs / Tbsh / Tbc
Butano Sandstone
Marine; Narizian, Ulatisian, and Penutian Stages
Tbs, sandstone, minor micac. shale
Tbsh, micac. shale, minor sandstone
Tbc, granitic conglomerate and sandstone

Tus / Tuc (Tus)
Marine units of undetermined identity
Tus, arkosic sandstone minor micac. shale of Butano or Vaqueros Formations
Tuc, clay shale and siltstone of Butano Sandstone or San Lorenzo Formation

grd
Granodiorite to quartz diorite

sch
Schist

QUATERNARY: Holocene; Pleistocene
TERTIARY: Pliocene; Miocene; Oligocene; Eocene
Eocene or/and Oligocene
MESOZOIC
PALEOZOIC (?)



UNITS NORTHEAST OF SAN ANDREAS FAULT

Qal
Alluvium

Qoa
Older alluvium

UNCONFORMITY

Tmp
Shale of Mount Pajaro[3] area (marine)
upper part siliceous to semi-siliceous; lower part argillaceous

Ts / Tsh / Tss
Tss, undivided arkosic sandstone and shale
Ts, arkosic sandstone
Tsh, micaceous shale

Ksh / Kss / Kcg
Marine sedimentary rocks
Ksh, micaceous shale, few thin sandstone strata
Kss, sandstone and micac. shale
Kcg, cobble conglomerate and sandstone with volcanic, granitic, metamorphic and mafic igneous rock detritus

sp
Serpentinite

Holoc. / Pleist. — QUATERNARY
Olig. or L. Miocene? — TERTIARY
Eocene? — TERTIARY
Upper CRETACEOUS
JUR. OR CRET.

Contact (dashed where gradational or approximately located)

Fault[2] (dashed where approximately located; dotted where concealed; double parallel arrows indicate strike-slip movement)

anticline — syncline
Axis of fold

horizontal — inclined
vertical — overturned
Strike and dip of bedding

Down-slope movement of landslide (indicated by half arrow)

Quarry

Abandoned test hole drilled for oil or gas

Notes

1. See map by Cooper Clark (1975) for a more complete inventory of landslide deposits.
2. See map by Hall and others (1974) for fault hazards.
3. Mount Pajaro is in Watsonville East 7½ quadrangle.
4. Nomenclature of Clark (1966).

SCALE 1:24000

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
State Route

LAUREL, CALIF.
SW/4 LOS GATOS 15' QUADRANGLE
N3700—W12152.5/7.5
1955
PHOTOREVISED 1968
AMS 1658 III SW—SERIES V895

Geology partly compiled from Burford (1961), Dupré (1974), Rogers (1971), and Smith (1971).

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards

References cited

Brabb, E. E., 1964, Subdivision of San Lorenzo Formation (Eocene-Oligocene), west-central California: Am. Assoc. Petroleum Geologists Bull., v. 48, no. 5, p. 670-697.

Burford, R. O., 1961, Geology of the Glenwood basin area, Santa Cruz Mountains, California: Stanford Calif., Stanford Univ., M.S. thesis.

Cooper, Clark and Associates, 1975, Preliminary map of landslide deposits in Santa Cruz County, California: in Seismic Safety Element, Santa Cruz County Planning Dept., Santa Cruz, California.

Dupré, W. R., 1975, Geology and liquefaction potential of Quaternary deposits in Santa Cruz County, California: U.S. Geol. Survey Misc. Field Investigations Map, MF-648, scale 1:62,500.

Hall, N. T., Sarna-Wojcicki, A. M., and Dupré, W. R., 1974, Faults and their potential hazards in Santa Cruz County, California: U.S. Geol. Survey Misc. Investigations Map, MF-626, scale 1:62,500.

Rogers, T. H., 1971, Environmental geologic analysis of the Santa Cruz Mountain Study area, Santa Clara County, California: Calif. Div. Mines and Geology, Sacramento, California, 64 p.

Smith, R. K., 1971, Foraminiferal studies in the lower and middle Tertiary of Soquel Creek, Santa Clara County, California: Univ. Calif. Publ. Geol. Sci., v. 91, no. 1, p. 1-96.

PRELIMINARY
GEOLOGIC MAP OF THE LAUREL QUADRANGLE, SANTA CRUZ AND SANTA CLARA COUNTIES, CALIFORNIA

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1978