

**ABBREVIATED EXPLANATION**  
Approximate stratigraphic relationships only; see Geologic Map Explanation for more accurate age determinations and unit descriptions.

Q	Alluvium	U	Dredge or mine tailings
AF	Artificial fill	DS	Dune sand
DI	Interfluvial deposits (fluvial)	PA	Paternoster Alluvium
DP	Das Pitas Alluvium	QAL	Alluvial fan deposits
QD	Landslide deposits	QTL	Terrace deposits
QF	San Luis Ranch Alluvium	QCL	Continental and marine deposits
QI	Modesto Riverbank Formations (Unconsolidated)	QMR	Modesto Formation
QJ	Older alluvium	QR	Riverbank Formation
QL	Turlock Lake Formation (Nonmarine sand, silt, and gravel)	QNA	Los Banos Alluvium
QM	Tulare Formation (Alluvium)	QNM	North Merced Gravel (Thin pediment terraces)
QO	Merced Formation (Marine sandstone)		
QOT	Plio-Pleistocene nonmarine deposits (sand and gravel)		
PI	Laguna Formation (Consolidated alluvium)	PR	Basaltic rocks
P1	Tehama Formation (Sand, silt, and volcaniclastic rocks)	PT	Lawlor Tuff
P2	Paraisano Formation (Marine sandstone and siltstone)		
PH	Tassajara Formation (Chamorroite mudstone)		
MC	Santa Cruz Mudstone (Marine)	CCG	Contra Costa Group (Chamorroite sandstone)
MS	Santa Margarita Sandstone (Marine)	FG	Fanglomerate
MP	San Pablo Group (Marine sandstone)	MPB	Pineole Tuff
MT	Monterey Formation (Marine shale and sandstone)	MB	Raid Peak Basalt
ML	Lompico Sandstone (Marine)	MLV	Mincine volcanic rocks (Mycine)
MSH	Lambert Shale (Marine)	MD	Dacite
MTB	Tombler Formation (Marine sandstone)	U	Undivided Tertiary marine sedimentary rocks
MTN	Mehren Formation (Andesitic conglomerate)	MBH	Mindego Basalt
TV	Valley Springs Formation (Rhyolitic ash and sandstone)	MLT	Table Mountain Lattice
VS	Vaqueros Sandstone (Marine)	TK	Tertiary Volcanic
SL	San Lorenzo Formation (Marine mudstone)	TKV	Tertiary Basalt
EP	Poverty Flat Sandstone (Marine mudstone)		
EX	Kreyenhagen Formation (Marine sandstone and shale)	EMK	Markley Sandstone (Marine)
EB	Butano Sandstone (Marine)	EN	Nortonville Shale (Marine)
ED	Domergue Sandstone (Marine)	EJ	Jone Formation (Quaternary sandstone and basaltic lap, mostly marine)
EM	Megans Formation (Marine)	TA	"Auriferous" Gravels
EMU	Unnamed Eocene marine rocks		
PE	Tesla Formation (Marine quartzite sandstone)		
PL	Locatelli Formation (Marine sandstone and conglomerate)		
PR	Reyes Formation (Marine conglomerate and sandstone)		
PRM	Marine Formation (Marine sandstone)		
TK	Tertiary-Cretaceous marine sedimentary rocks		
PKP	Pigeon Point Formation (Marine sandstone and conglomerate)	CV	Cretaceous volcanic rock
CH	Chico Formation (Marine sandstone, shale, and conglomerate)		
MR	Mereaux Formation (Marine shale)		
KS	Upper Cretaceous marine sedimentary rocks	KB	Beressya Formation (Marine sandstone and shale)
KA	Sandstone	KP	Panoche Formation (Marine sandstone and shale)
SH	Shale		
GR	Lower Cretaceous marine sandstone and shale	GRG	Cretaceous granitic rocks
GRJ	Upper Jurassic-Lower Cretaceous marine sandstone and shale	GRQ	Cretaceous quartzite
FR	Franciscan Complex*	GRS	Granitic rocks
GS	gneiss	GRD	Dioritic rocks
MG	metagraywacke	GRB	Gabbroic rocks
LS	limestone	UM	Ultramafic rocks
CH	chert		
UM	ultramafic rock		
BL	blueschist blocks		
MS	Mariposa Formation (stone, soapstone, and conglomerate, marine)	JMS	Salt Springs and Merced Falls Slates
JMS	Mariposa Formation (stone, soapstone, and conglomerate, marine)	JMS	Jurassic(?) metamorphic rocks
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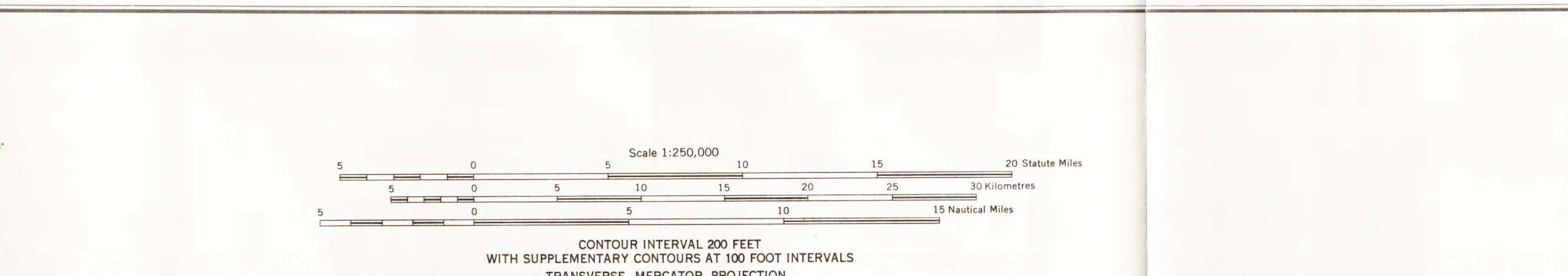
Geology compiled 1981-1985

BASE MAP  
Base map is a composite of part of the San Francisco 1:250,000 scale map (reference code 37120.41, 19-260.0, 1980) and the San Jose 1:250,000 scale map (reference code 37120.41, 19-260.0, 1980). For cartographic details, refer to these maps. Bathymetric information is not intended for navigational purposes.

TRANSVERSE MERCATOR PROJECTION  
Transverse Mercator Projection, 10,000-meter Universal Transverse Mercator grid zone 10

CONTOUR INTERVAL 200 FEET  
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS  
TRANSVERSE MERCATOR PROJECTION

INDEX TO ADJOINING SHEETS



**EXPLANATION**

method\*\* mineral\*\*\*  
location no.\* age (m.y.) Sample location

\*\*method  
KA = Potassium/Argon;  
FT = Fission track;  
UPb = Uranium/Lead;

\*\*\*mineral or material  
A = Amphibole; B = Biotite;  
G = Glauconite and other blue amphiboles;  
H = Hornblende; M = Muscovite; P = Plagioclase;  
Px = Pyroxene; S = Sanidine; Sp = Sphene;  
WK = Whole rock; Z = Zircon

**MAP SYMBOLS**

— Contact (Observed or dashed where approximately located; queried where gradational or inferred)

--- Overturned fold (Dashed where inferred; dotted where concealed by younger rocks)

— Fault (Solid where well located; dashed where approximately located or inferred; queried where gradational or reference is uncertain)

— Strike and dip of beds (General strike and dip of stratified rocks)

— Strike and dip of foliation (General strike and dip of foliation in metamorphic rocks)

— Artificial fold (Dashed where inferred; dotted where concealed by younger rocks or water)

— Synclinal fold (Dashed where inferred; dotted where concealed by younger rocks or water)

◆ Blue schist blocks

LOCATION MAP OF ROCK SAMPLES DATED RADIOMETRICALLY, SAN FRANCISCO-SAN JOSE QUADRANGLE, CALIFORNIA, 1:250,000

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