

FIG. 8A. GEOLOGIC SECTION OF VERTICAL TRENCH FACE AND MAP OF 1:1 SLOPE, SOUTHEAST WALL

- EXPLANATION**
[Descriptions are lithologic only; temporal or stratigraphic correlation between units with the same label is neither intended nor implied; parts of some units involved in recent landslides.]
- Recent Surficial Deposits**
- SC**
Sand and clay, variably brownish-gray to olive-gray, fine- to medium-grained, moderately sorted, very clayey; locally contains thin lenses of pebbly gravel or sand
 - G-3**
Gravel, pale to moderate yellow-brown; consists of subangular to subrounded pebbles, cobbles, and boulders in a plentiful matrix of loose, coarse-grained, poorly to moderately sorted sand; locally distinct north-dipping imbrication; contains numerous interbeds and lenses of sand and pebbly sand
 - G-4**
Gravel, moderate yellow-brown; consists of subangular pebbles, cobbles, and boulders, chiefly of locally derived sandstone, in coarse-grained and poorly sorted clayey sand; locally distinct north-dipping imbrication
 - Sd-3**
Sand, pale-grayish-brown, variably fine- to coarse-grained, poorly to moderately sorted, loose and friable; contains sparse scattered pebbles, locally abundant shells (*Mytilus californianus* in middle(?)), tentatively dated at about 2,950 years before present by C^{14} , and disseminated chips of carbonaceous material; grades up to darker colored clayey sand
 - Sd-4**
Sand, reddish-brown to yellow-brown, clayey; contains about 5 percent angular fragments to 6 in. long of unit G-3 and some subangular to subrounded pebbles; grades southwest to olive-gray clay that contains sparse pebbles
- Middle Miocene Bedrock (Cont.)**
- m-9**
Mudstone or siltstone, dark-olive-gray, finely sheared, contains numerous laminae, wavy beds, and thin beds of pale-gray medium-grained sandstone (sd) that have been displaced, fragmented, or segmented by minor faults and closely spaced shears; contains scattered nodules and patches of phosphate; may correlate with unit **ms** of trench 2
 - t**
Tuffaceous sandstone or tuff, pale-gray-white, in beds as thick as 1 1/2 ft. or as fragments or concretions; locally consists of tuff breccia; contains numerous pellets of montmorillonite on boundaries
 - sd-1**
Sandstone, pale-yellowish-gray to grayish-brown, structureless, graded, or laminated, fine- to coarse-grained, poorly to moderately sorted, friable; occurs as ellipsoidal pods as long as 10 ft. in unit **msd**, with boundaries of sheared and striated mudstone; commonly contain numerous iron oxide-stained fractures approximately normal to bedding and long axis of pod, along which the pod boundaries are displaced as much as 4 in.
 - sc-1**
Siltstone and very fine grained sandstone, grayish-orange to yellowish-gray, structureless except for local lamination, hard, dolomitic(?), commonly closely fractured, forms resistant, concretionary beds or bodies in mudstone sequences
- Unit B**
- Artificial fill**
- af**
- Middle Miocene Bedrock**
- msd**
Mudstone, olive-gray to yellowish-brown (grayish-black when fresh), brecciated and sheared; contains numerous lenses and ellipsoidal pods to 10 ft. long of unit **sd-1**
 - m-6**
Mudstone or claystone, black when fresh, plastic, tough, and coherent; contains numerous scattered irregular to ellipsoidal pods of structureless, graded, or laminated fine- to coarse-grained sandstone and very rare volcanic rock, commonly 1/2 to 6 in. long, but may be as long as 1 foot; also contains scattered nodules and fragments of white tuff as long as 1 1/2 in.
 - m-7**
Mudstone or siltstone, olive-gray; contains scattered fragments or blocks of tuff breccia, and blocks or beds of hard, dolomitic(?), locally concretionary siltstone with sheared mudstone at boundaries; rock is homogeneously sheared on a fine scale to produce a dense mass of tightly packed fragments 1/8 to 1/2 in. long; local north-dipping, vague bedding and closely spaced continuous shears produce a banded effect; contains abundant late middle Miocene Foraminifera (Luisian stage of Klempell); may correlate with unit **mf** of trench 2
 - m-8**
Mudstone or siltstone similar to unit **m-7**, but contains numerous thin concretionary pods or beds of hard dolomitic(?) siltstone that define bedding; and common pellets and streaks of pale greenish-yellow montmorillonite on slip surfaces; contains abundant late middle Miocene Foraminifera

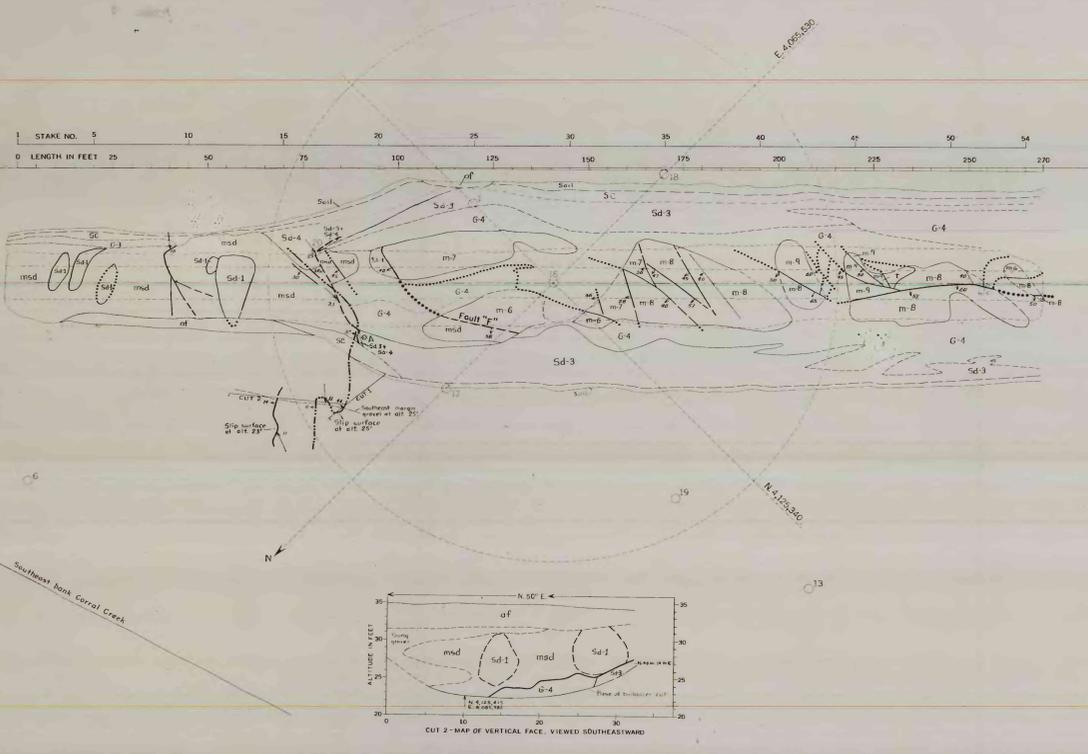


FIG. 8B. GEOLOGIC MAP OF BENCH AND 1:1 CUT SLOPE

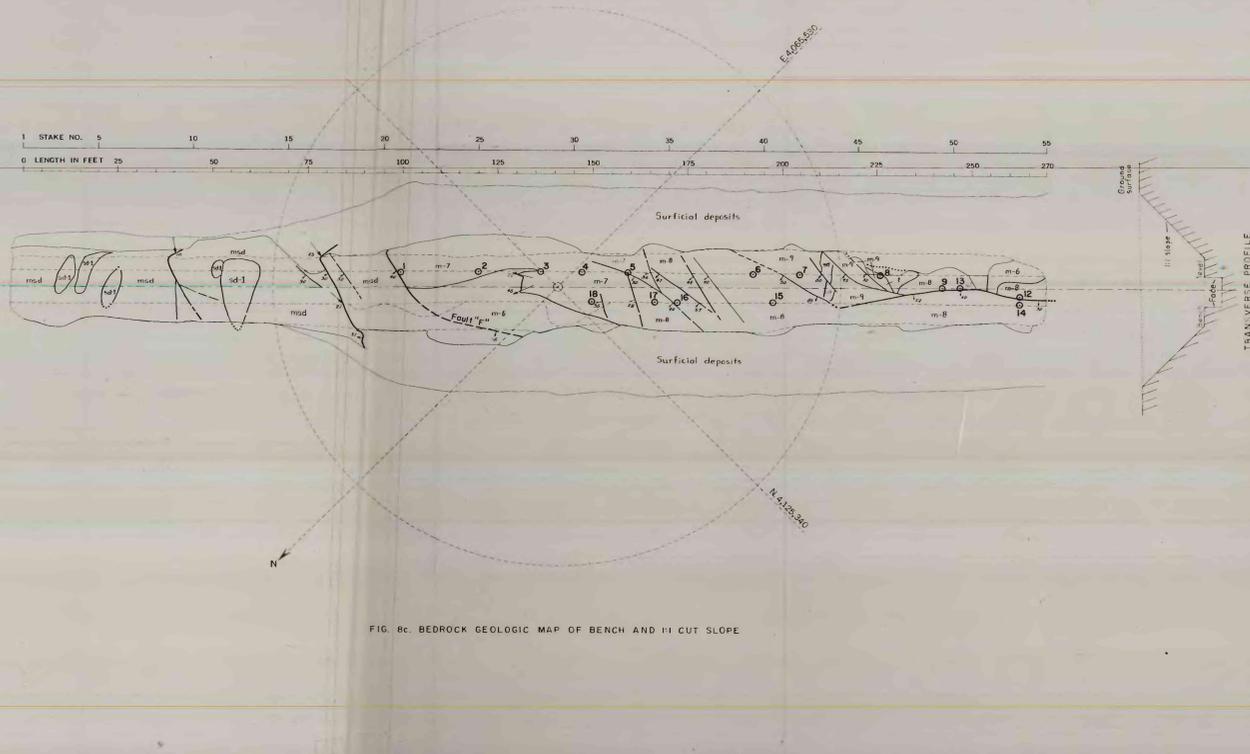


FIG. 8C. BEDROCK GEOLOGIC MAP OF BENCH AND 1:1 CUT SLOPE

- Contacts:** solid where distinct, dashed where indistinct, dotted where concealed; bedrock contacts except on 1:1 cut slope are projected to bench level on the geologic maps; in Fig. 8B they are shown as concealed where they would be covered by surficial deposits at bench level if the trench had not been excavated below that level; in Fig. 8C they are shown at bench level as if there were no surficial deposits except near 75-foot and south of 220 feet on the southeast face; contacts on 1:1 cut slope shown in this map position:
- Contact between depositional units, showing dip**
 - Contact of soil horizon**
 - Fault or landslide slip surface, showing dip**
 - Minor fault or shear surface, showing dip**
 - Inferred contour on landslide slip surface at altitude 25 ft.**
 - Direction of top of bed as determined from sedimentary structures; bare points to top of bed**
 - Amount of plunge and trend of striations on slip surface**
 - Amount of plunge and trend of minor anticline**
 - Amount of plunge and trend of minor syncline**
 - Fossil locality CW 126, shells from this collection have C^{14} age of approximately 2,950 years**
 - Microfossil locality; all faunas are late middle Miocene (Luisian stage of Klempell, 1938)**
- Test boring and number**
- U.S. GEOLOGICAL SURVEY LIBRARY**
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FIG. 8. GEOLOGIC MAPS OF TEST TRENCH 3 (REACTOR LOCATION)

Data for base courtesy of Dept. Water and Power, City of Los Angeles

Mapped May 3-9, 1965, by R. F. Yerkes, C. W. Wentworth, and R. H. Compeau