

M(200)
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Group of lithologically related strata. Number indicates position in section from the lowest upward.

Gravel	G
Gravel with sand	GS
Sand with gravel	SG
Sand	S
Sand with silt and/or clay	CS
Silt with sand	SN
Silt	N
Silt with clay	NC
Clay with silt and/or sand	CS
Clay	C
Clay with sand lenses	C/S

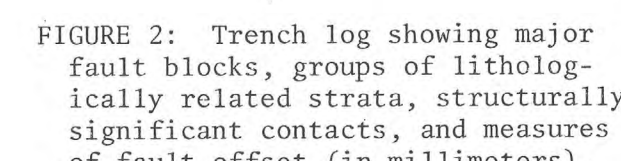
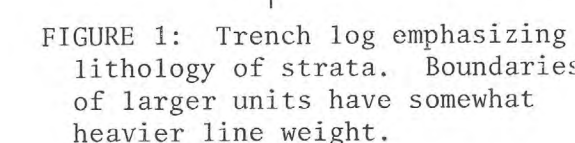
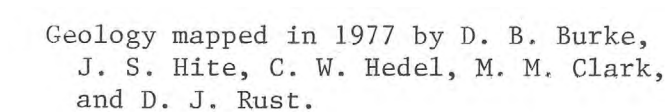
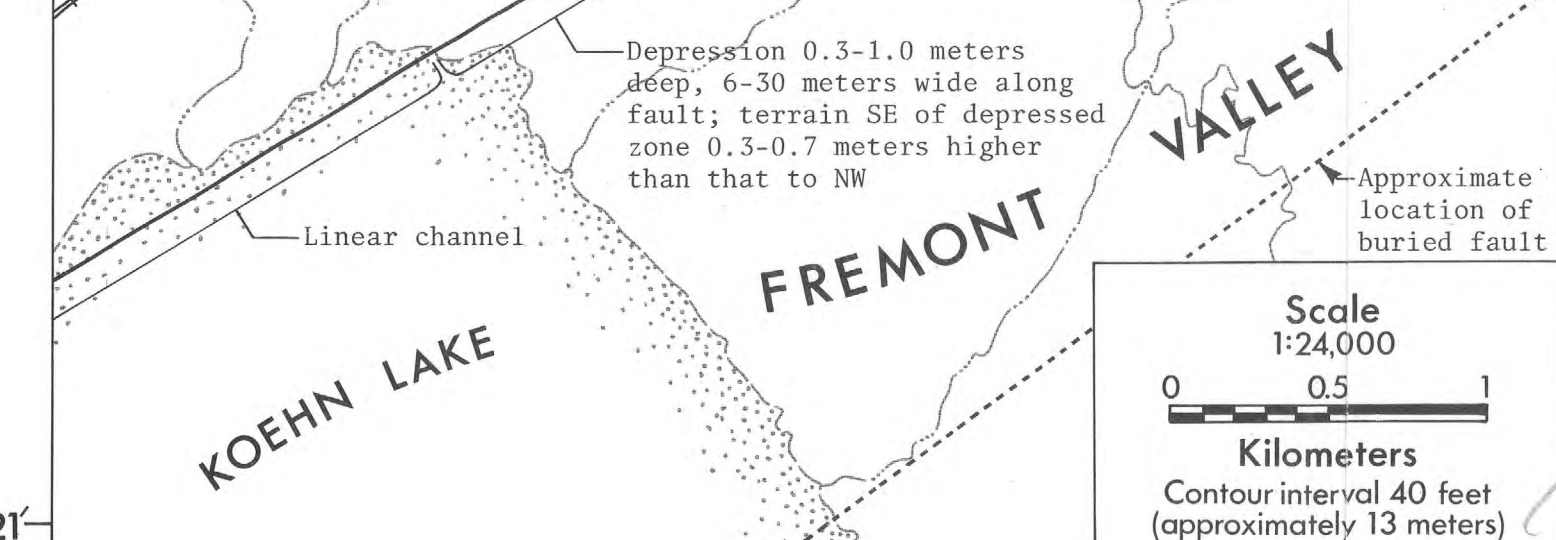
[illegible]

FIGURE 2: Trench log showing major fault blocks, groups of lithologically related strata, structurally significant contacts, and measures of fault offset (in millimeters).



Geology mapped in 1977 by D. B. Burke,
J. S. Hite, C. W. Hedel, M. M. Clark,
and D. J. Rust.



Depression 0.3-1.0 meters deep, 6-30 meters wide along fault; terrain SE of depressed cone 0.3-0.7 meters higher than that to NW

Linear channel

KOEHN LAKE

FREMONT VALLEY

Approximate location of buried fault

Scale 1:24000

0 0.5 1 Kilometers

Contour interval 40 feet (approximately, 13 meters)

Figures 1 and 2 are geologic maps (or logs) of the wall of a backhoe trench across the Garlock fault, one of the major active faults in southern California. The sedimentary deposits and structures that are portrayed were excavated near the eastern edge of the bed of Koehn dry lake in Fremont Valley, through which the fault cuts with left-lateral displacement on a northeast trend (Figures 3, 4 and 5). The southwestern wall of the trench is represented on the log.

Exposure rates are separated into four structural blocks by three principal strands within the Gerlock fault zone (Figure 2). Six lithologically distinctive units are present in the Gerlock fault zone (Figure 2); two of these groups are missing from the uppermost and lowermost blocks at the time or to later erosion of deposits. Characteristics of the units and the relationships of the sediments were determined from the study of the lake bed deep in the Fremont Valley basin (see Table 1) and from the study of the lake bed in the south of the lake bed gives the age of that unit and the approximate age of the top of the sand and the gravel. The lake bed is 150 years old. The lack of suitable material precluded dating of younger groups.

[illegible]

Interior--Geological Survey, Reston, Va.--1979
For sale by Branch of Distribution, U. S. Geological Survey

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