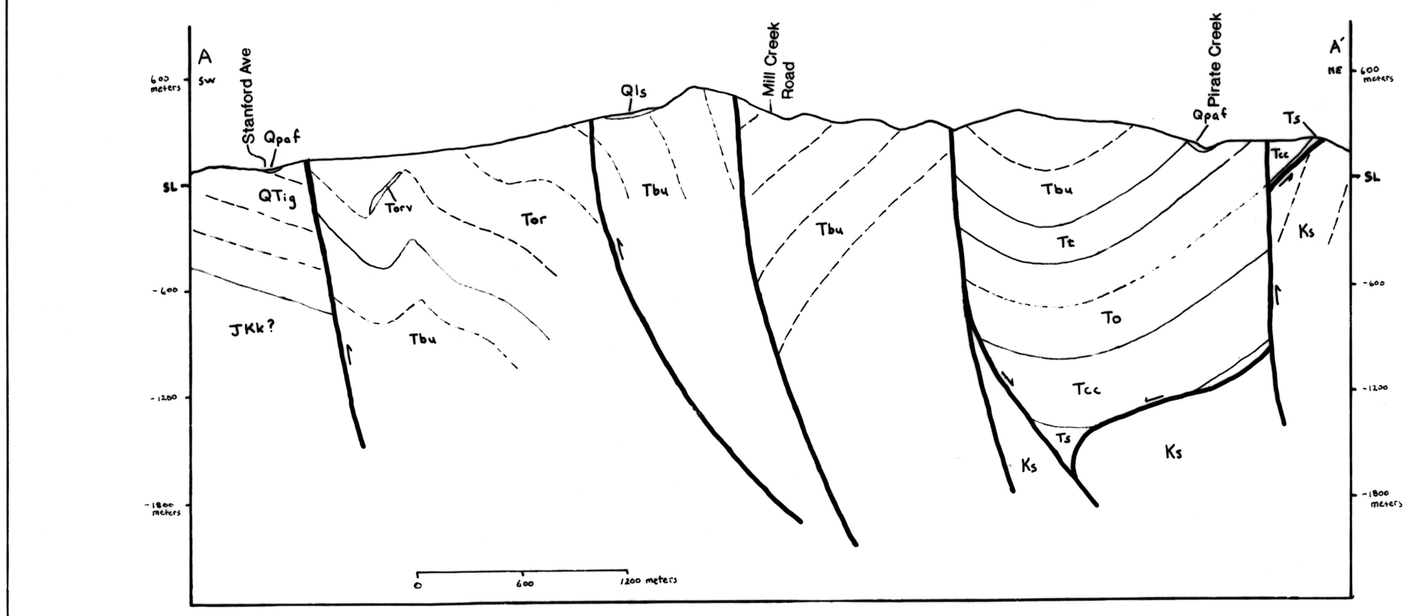
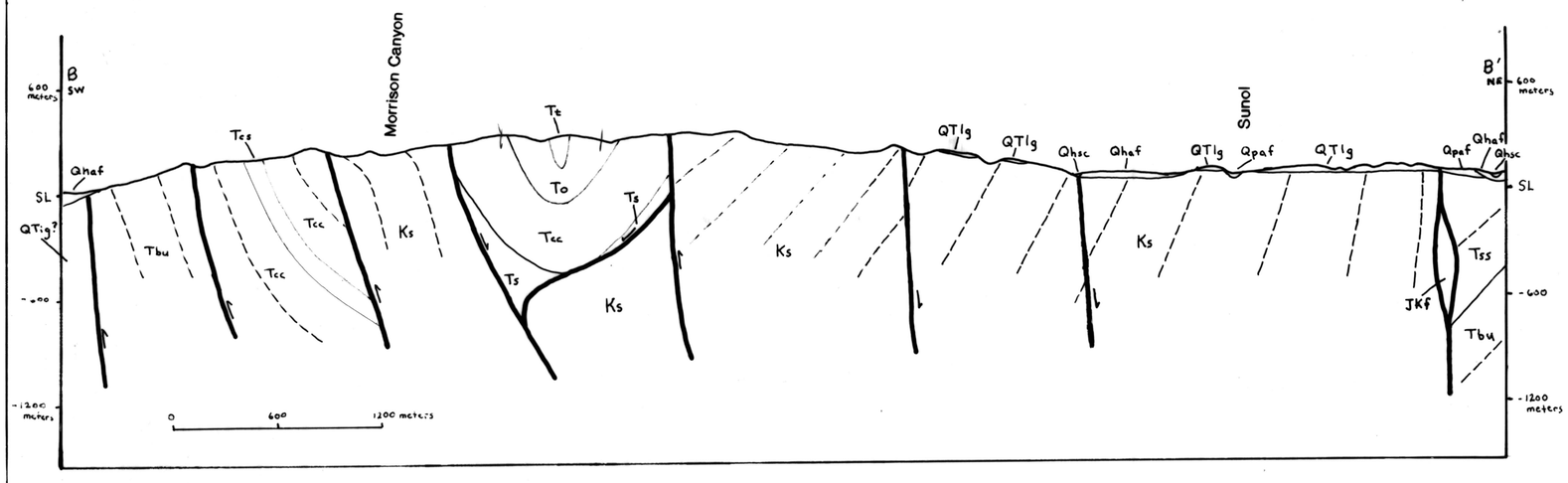
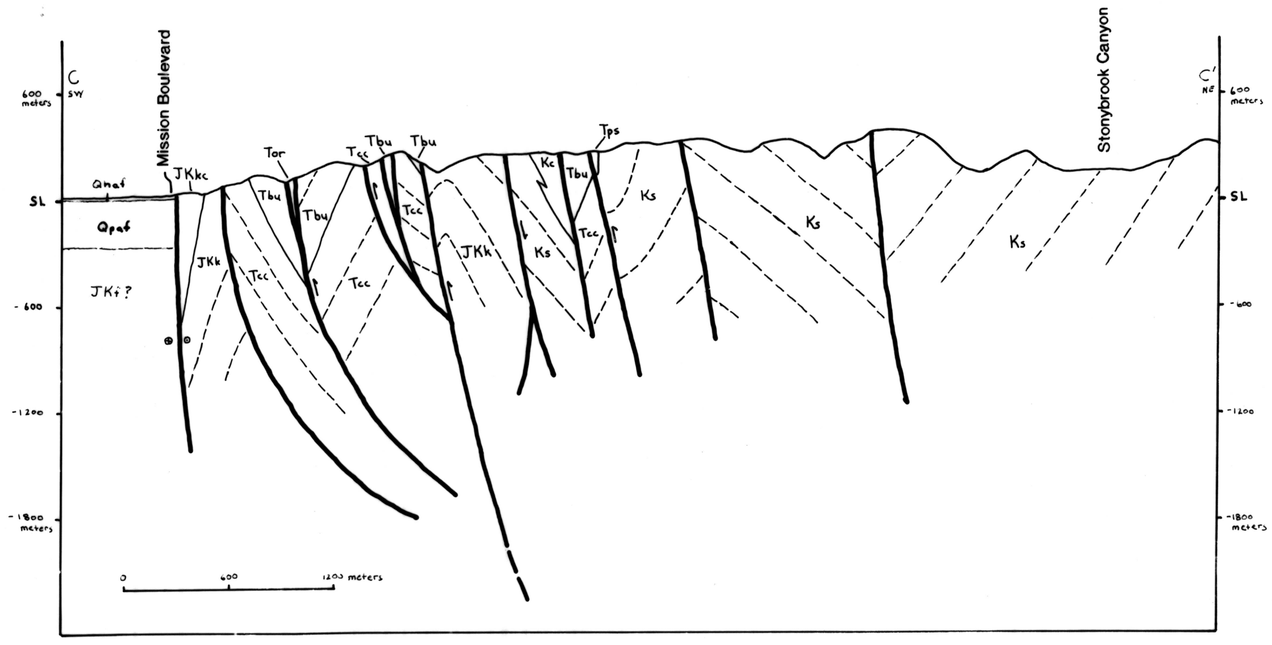






EXPLANATION

- Fault cuts Holocene alluvium
- Fault cuts Pleistocene alluvium
- Fault cuts early Pleistocene to late Pliocene strata

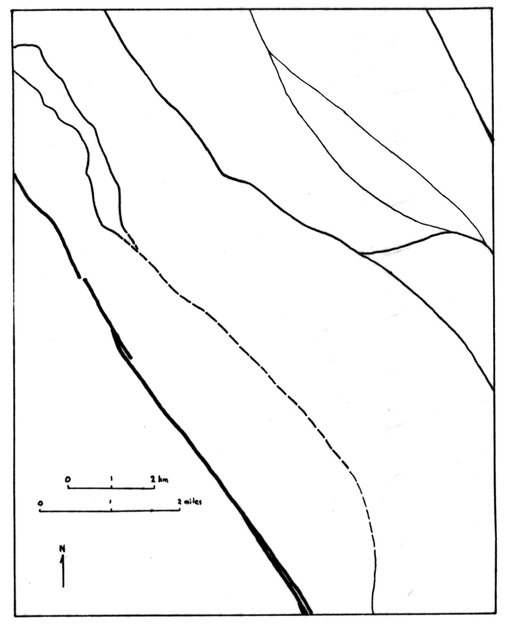
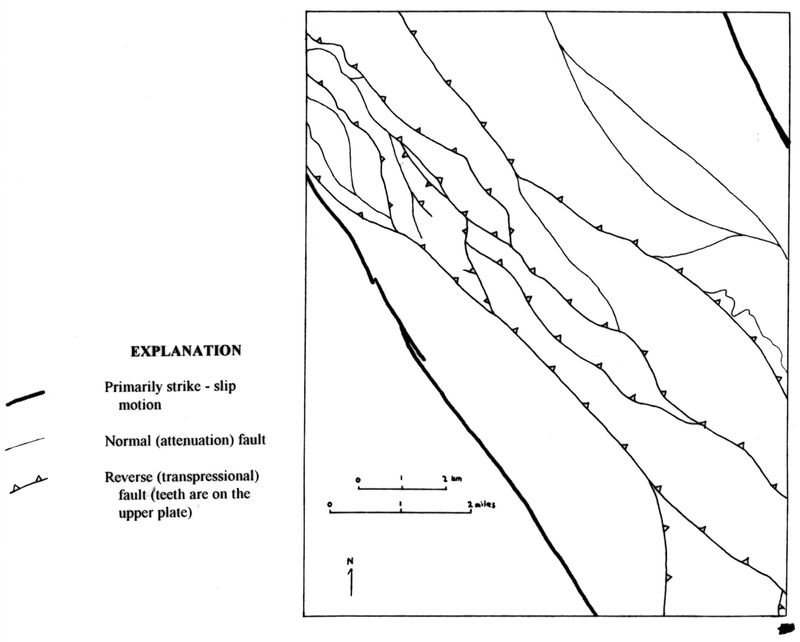


Figure 1 Index map of Niles Quadrangle showing faults that cut Quaternary deposits.

Table 1 Table showing fossil data from localities in the Niles Quadrangle.

Map Locality #	Catalog #	Unit	Age	Fossil Type	Source of Fossil Identification
1	Hall#5 LSJU 1810	JKkc	Early Cretaceous	*Aucella crassicollis*	Hall (1958)
2	90-CB 3006 MF 7872	Tsh	Saucesian (Miocene)	Forams	McDougall (writ. comm., 1991)
3	90-CB 3004 MF 7793 and 92-CB 3632 MF 7993	Tps	Paleocene	Coccoliths	Bukry (writ. comm., 1991 and 1992)
4	Hall#6 LSJU 1811 LSJU 1825	Kc	Early Cretaceous	Invertebrate Macrofossils	Hall (1958)
5	92-CB 3502 MF 8136	Tcc	Mohnian (Miocene)	Forams	McDougall (writ. comm., 1992)
6	Hall#9 LSJU 3233	Tcs	middle Miocene	*Anadara obispoana*	Hall (1958)
7	J.M. Hill 10-8-3 MF 3257	Tcs	Luisian (Miocene)	Forams	McDougall (writ. comm., 1976)
8	J.M. Hill 10-8-7 MF 3258	Tcc	upp. Relizian -low. Luisian (Miocene)	Forams	McDougall (writ. comm., 1976)
9	90-CB 3011 MF 7795	Ks	Santonian (Late K) -Paleocene	Forams	McDougall (writ. comm., 1991)
10	Hall#1 (Micro) LSJU 3253	Ttls	Eocene	Algae Forams Echinoid spines	Hall (1958)
11	Hall#28 LSJU 3250	Tcc	late Miocene	*Nuculana oschneri*	Hall (1958)
12	92-CB 3472 MF 8125	Tcc	Mohnian (Miocene)	Forams	McDougall (writ. comm., 1992)
13	Hall#10 LSJU 3234	Tcs	middle Miocene	*Anadara obispoana*	Hall (1958)
14	92-CB 3473 MF 8126	Tt	Miocene	Forams	McDougall (writ. comm., 1992)
15	92-CB3474 MF 8127	To	Mohnian (Miocene)	Forams	McDougall (writ. comm., 1992)
16	Hall#31 LSJU 1827	Ks	Early Cretaceous(?)	Unidentifiable echinoid	Hall (1958)
17	Hall#11 LSJU 3235	Tt	late Miocene	*Pecten (Psuedamusium) peckhami*	Hall (1958)
18	Hall#8 LSJU 1824	Ks	Early Cretaceous	*Berriasella sp?*	Hall (1958)
19	Hall#4 LSJU 3232	Tbu	late Miocene	Invertebrate Megafossils	Hall (1958)
20 21 22	U.C. Loc. V3602 U.C. Loc. V3604 U.C. Loc. V3605	QTig	Irvingtonian (Pleistocene)	Large Vertebrate Fossil Assemblage	Savage (1951)
23	P. Brink 6AB-19 USGS Cen. loc. M6642	Tts	late Eocene - early Miocen	*Epitonium (Boreoscala?)* sp.	Addicott (writ. comm., 1975)
24	P. Brink 2AB-20 USGS Cen. loc. M6493	Ks	Albian - Cenomanian(?) (Cretaceous)	*Rimella macilenta*(?)	Jones (writ. comm., 1976)
25	P. Brink 6AB-20 USGS Cen. loc. M6492	Ks	late Albian (Early K.)	*Mortoniceras* sp.	Jones (writ. comm., 1976)
26	92-CB 3634 MF 8193	Tps	Paleocene	nannoplankton	Buckry (writ. comm, 1992)



EXPLANATION

- Primarily strike - slip motion
- Normal (attenuation) fault
- Reverse (transpressional) fault (teeth are on the upper plate)

Figure 2 Index map of Niles Quadrangle showing type of motion on major faults.

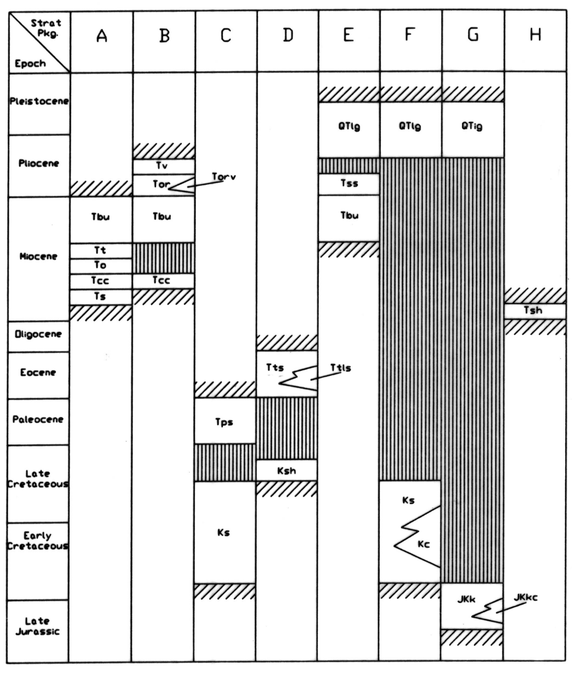


Figure 3 Correlation Chart of different sequences of geologic formations bounded by faults. Distribution of stratigraphic packages shown in Figure 4. Vertical lines represent unconformities, diagonal lines indicate top and bottom of exposed section. Unit designations follow map usage.

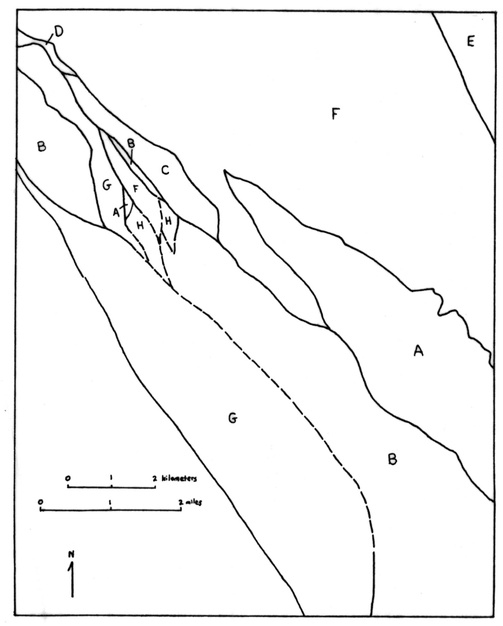


Figure 4 Map of distribution of stratigraphic packages. (Letters correspond to columns on the correlation chart, Figure 3)

PRELIMINARY GEOLOGIC MAP OF THE NILES 7.5-MINUTE QUADRANGLE, ALAMEDA COUNTY, CALIFORNIA

By

Russell W. Graymer, David L. Jones, Earl E. Brabb and Edward J. Helley

1994

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.