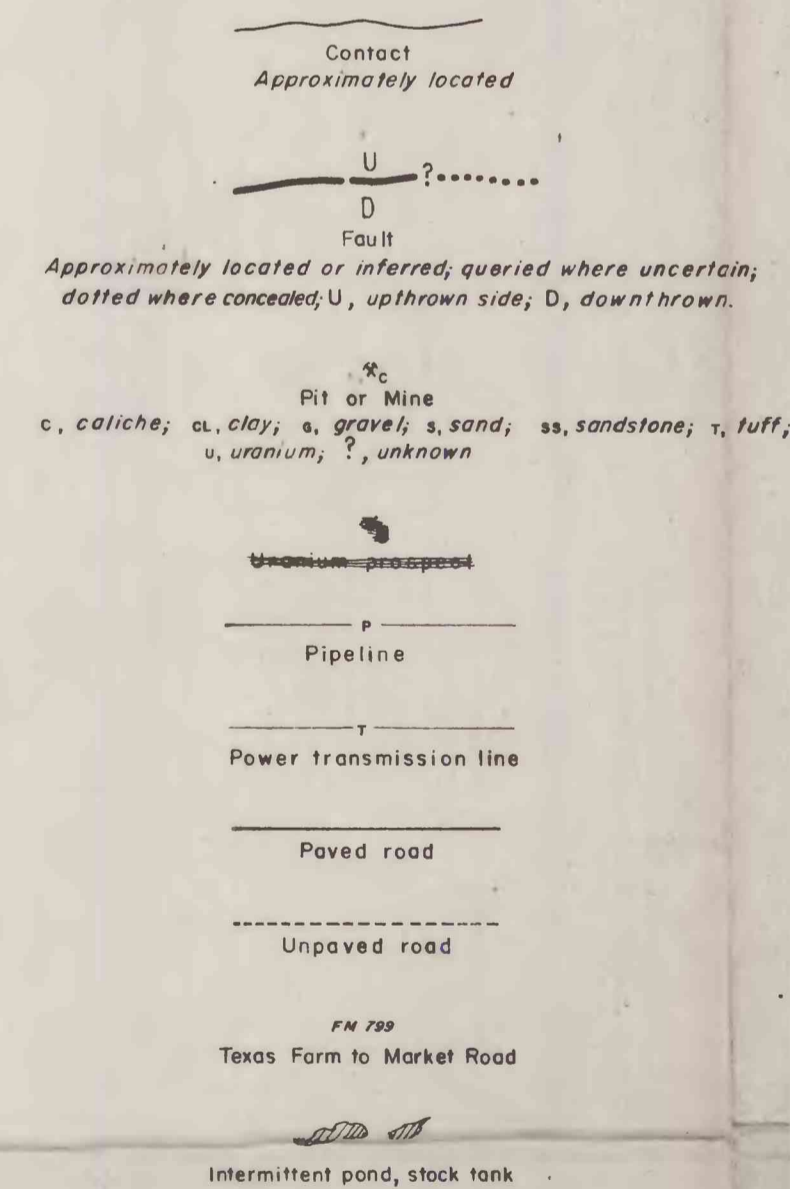




- Qal**
Alluvium
Sand and silt, gravel at base. Includes alluvial deposits as high as 30 feet above streams and some low terrace deposits.
- Q1**
Stream terrace deposits
Sand, silt, and clay, gravel at base. Alluvial deposits generally more than 30 feet above stream level.
- UNCONFORMITY**
- Tg**
Galveston Sand
Calcareous fluviatile light-gray to pink sand and red clay. Upper and middle parts are clay and sand interbedded, calciche strongly developed in upper few feet of older weathered exposures. Lower part is sand locally containing chert, volcanic rock, and clay pebbles at base. Thin, stony soils in the strong calciche of upper and middle parts, but thick, sandy soil developed in lower part.
- UNCONFORMITY**
- To**
Logarto Clay and Oakville Sandstone
Light-gray to pink and red silt and calcareous bentonitic clay with lenses of fine to coarse sand grades downward into gray, luffaceous, calcareous sandstone. Basal sandstone is strongly crossbedded, coarse-grained, contains abundant varicolored lithic grains; at base locally is a conglomerate containing rounded tuff balls and pebbles of chert. Calcareous fossils and limestone, vesicular lava and pumice. Generally covered with deep, dark soil.
- UNCONFORMITY**
- Tca**
Catahoula Tuff
Calcareous buff to pink and light-brown luffaceous silt and olive bentonitic clay. In lower half of formation are lenses of gray sand containing many varicolored grains, and some beds of nearly pure tuff. Basal beds locally sandstone or conglomerate of tuff balls and pebbles of chert and volcanic rock. Stripping indicates area of strongly developed calciche and nodular clay of an old surface now being destroyed by erosion. Soils are generally thin, medium- to dark-gray topsoil and calcareous white to brown subsoil.
- UNCONFORMITY**
- Tf**
Frio Clay
Greenish- to olive- and pinkish-gray clay, locally contains channel-filling deposits of light-gray coarse sand. Hatching indicates distributary channel-filling sandstone containing a uranium deposit.
- Tw**
Whitsett Formation
Tw, upper part chiefly white to brown tuff and olive-green and gray bentonitic clay, locally fossiliferous or carbonaceous. Twc, base of Calliham Sandstone Member; fine sandstone and coarse channel-filling sandstone, near middle of formation. Lower part of formation chiefly fine-grained gray luffaceous sand and silt, locally indurated on the surface, contains beds of nearly white volcanic ash and thin beds of brown lignite; sandstones are locally festoon cross-bedded and contain either borings of *Ophiomorpha* sp. and fossil mollusks or vertical plant-root impressions. Tws, basal sandstone member, fine-grained cross-bedded. * base of prominent sandstone near base of formation.
- Tmc**
McElroy Formation
Mostly brown bentonitic clay, locally fossiliferous. Upper part contains sandstone lenses whose bases are indurated locally where borings of *Ophiomorpha* were formed. Most lenses contain either borings of *Ophiomorpha* major and sparse to abundant thin-shelled pelecypods or vertical plant-root impressions. fs, base of sandstone locally containing very abundant pelecypod and less abundant gastropod shells. fh, ss, ds, bases of prominent sandstones.



Base from Army Map Service quadrangles Whitsett, 1925, and Sunland, 1936; U.S.G.S. quadrangles Oakville, 1927, Simmons, 1929, and Oakville NE (in process), revised from aerial photographs, 1948-56. Classification of roads and some cultural detail from Texas State Highway Dept. General Highway Maps.

Geology by D. H. Eargle, assisted by J. F. Stanford, Jr., 1963-66.
Tertiary geology south of Nueces River modified from R. B. Anders and E. T. Baker, Jr., 1961.

PRELIMINARY GEOLOGIC MAP OF THE LIVE OAK COUNTY AREA, TEXAS

by D. H. Eargle, J. F. Stanford, Jr., and B. O. Davis

