

U. S. DEPARTMENT OF THE INTERIOR

U. S. GEOLOGICAL SURVEY

Preliminary geologic map of the Hollywood 7.5' quadrangle
Southern California

Compiled by

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Open File Report 97-255

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

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INTRODUCTION

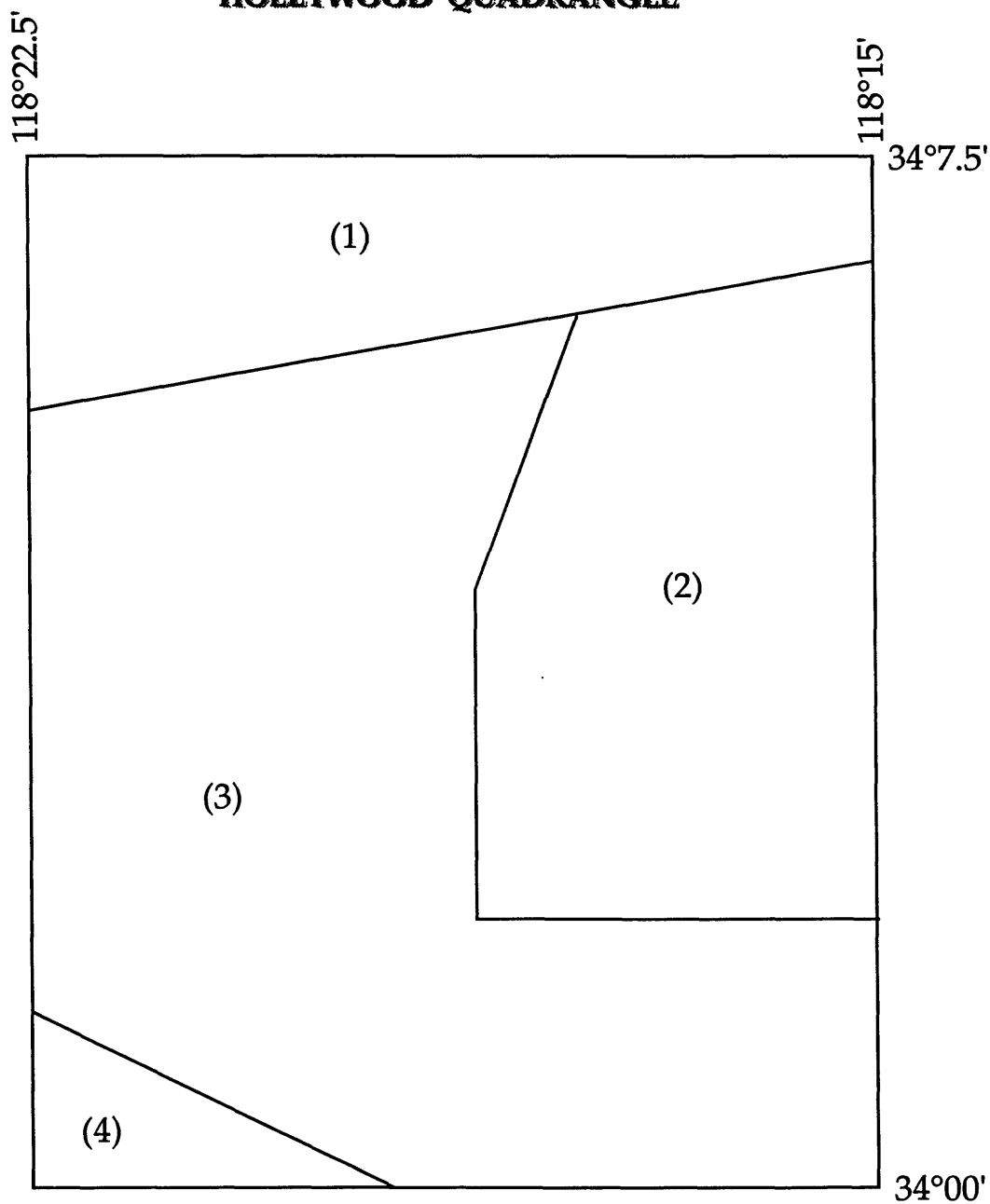
This map is a preliminary product of the Southern California Digital 1:100,000 Geologic Map Series (Southern California Areal Mapping Project-CAMP; Morton and Kennedy, 1989). The 1:24,000 manuscript for this map was compiled from original sources, chiefly at 1:24,000, and scanned and processed digitally using the U. S. Geological Survey Alacarte menu-driven interface (Wentworth and Fitzgibbon, 1991) for ARC/INFO, a commercial geographic information system (GIS) available from Environmental Systems Research Institute, Redlands, California.

This 1:24,000 quadrangle is one of sixteen that form the east half of the Los Angeles 1:100,000 quadrangle; the 1:24,000 quadrangles form the basic data supporting the regional-scale quadrangle, and thus include available data on exploratory oil wells and fossil collections.

Stratigraphic nomenclature is largely that of the source materials; it is subject to further modification as compilation progresses. Minor adjustments have been made in geologic boundaries to conform to the metric base, which was enlarged from 1:100,000.

The base map layers, drainage, roads, and topo contours, were prepared from publicly-available digital line graph (DLG) data for the 1:100,000 Los Angeles metric topographic map (1979 edition) by R. H. Campbell, U. S. Geological Survey, Reston, VA.

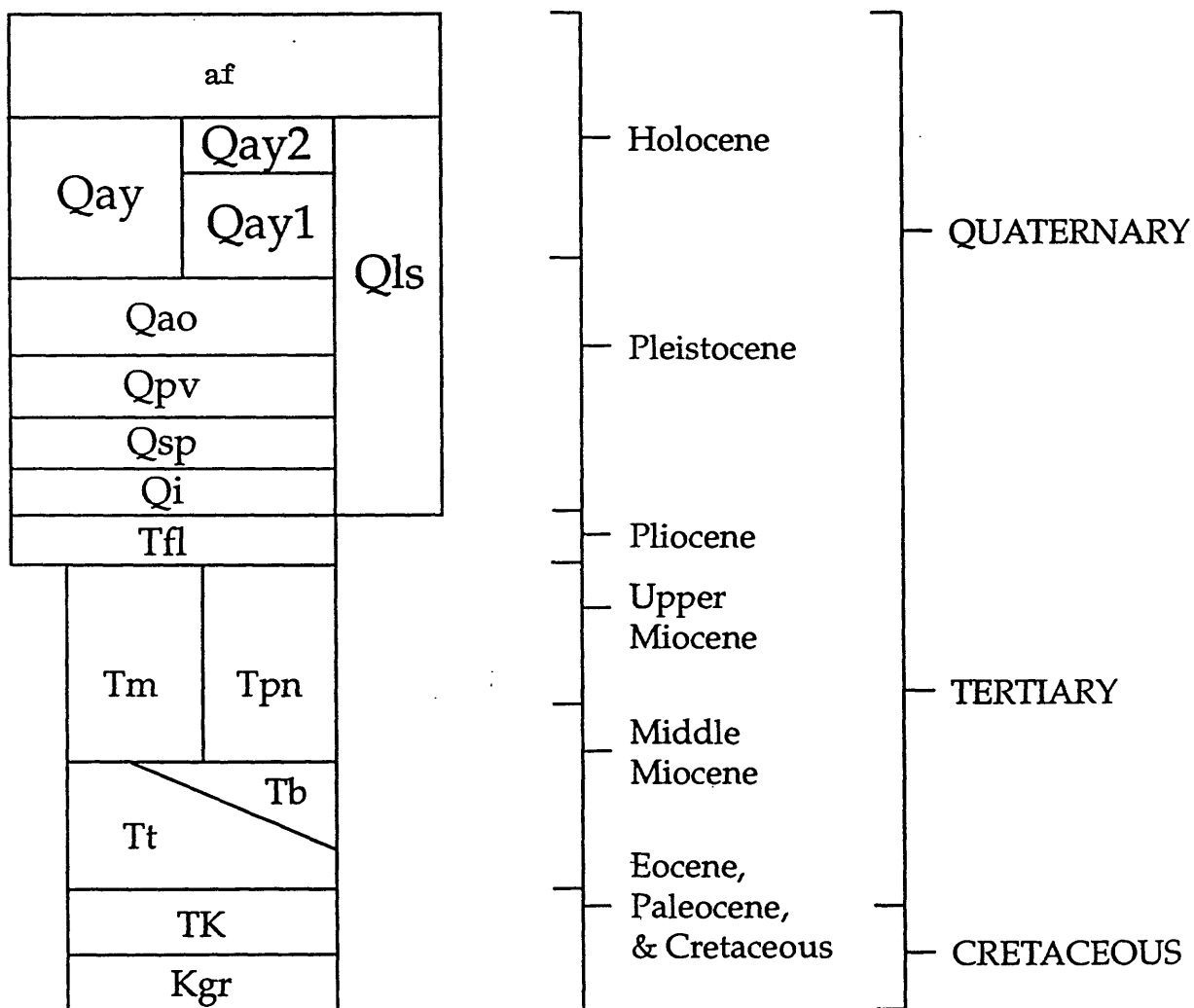
HOLLYWOOD QUADRANGLE



INDEX MAP SHOWING SOURCES OF GEOLOGIC MAPPING

1. Hoots, 1931, pl. 16; Colburn and others, 1988.
2. Lamar, 1970, pl. 1.
3. Tinsley and others, 1985.
4. Poland and others, 1959, pl. 2; Hsu and others, 1982, pl. 1.

CORRELATION OF MAP UNITS, PRELIMINARY GEOLOGIC MAP OF HOLLYWOOD QUADRANGLE



EXPLANATION, PRELIMINARY GEOLOGIC MAP, HOLLYWOOD QUADRANGLE

DESCRIPTION OF MAP UNITS

- af artificial fill Mostly supporting freeways
- Qay Alluvium (Holocene)-Gravel, sand, silt, and clay in active drainages; unconsolidated and uncemented; Qay2, underlies areas flooded historically, thickness 0-3 m, less than 1000 years old; Qay1, undifferentiated Holocene alluvium, age 1000-10,000 years
- Qls Landslide deposits (Holocene and Pleistocene)-Fractured and sheared bedrock and surficial deposits, commonly slumps
- Qao Older alluvium (late Pleistocene)-Gravel, sand, silt, and clay; moderately to well consolidated, slightly to well cemented, dissected
- Qpv Palos Verdes Sand (upper Pleistocene)-Marine sand and pebble gravel, fossiliferous; includes some nonmarine reddish-brown sand as terrace cover
- Qsp San Pedro Formation (lower? Pleistocene)-Marine sand, gravel, silt, and clay
- Qi Inglewood Formation (lower Pleistocene)-Marine well-bedded siltstone and interbedded very fine-grained sandstone, locally abundant calcareous and limonitic concretions
- Tfl Fernando Formation (Pliocene)-Siltstone, massive, soft, micaceous, some layers conglomerate and sandstone; bedding generally obscure; thickness about 110 m; contains Repettian-Wheelerian Stage boundary (Lamar, 1970, pl. 1)
- Tm Modelo Formation (upper Miocene)-Siltstone, thin bedded, interbedded sandstone, shale, and chert; locally contains fish scales of probable Mohnian age (Table 2); thickness about 1135 m; mapped as Topanga Formation by Lamar (1970)
- Tpn Puente Formation (Upper Miocene)-interbedded sandstone, siltstone, shale, and rare conglomerate or conglomeratic sandstone; total exposed thickness about 1880 m; foraminifera and fish scales referred to Kleinpell's (1938) Mohnian and Luisian? Stages (Table 2); Tpn1, siltstone, well bedded, very fine-grained sandstone, poorly cemented; Tpn2, shale, well bedded, siliceous; Tpn3, diatomaceous shale, well bedded, fissile, soft, punky, interbeds of fine- to coarse-grained sandstone; Tpn4, sandstone, medium to coarse grained, thinly laminated to thick beds, usually hard and well cemented
- Tb Basalt (Middle Miocene)-dark gray to black, generally fine grained, locally vesicular

- Tt** **Topanga Formation** (Middle Miocene)-Sandstone, shale, coarse-grained pebbly sandstone, and pebble-cobble conglomerate; locally contains foraminifera and mollusks (Table 2)
- TK** **Unnamed conglomerates**-(Tertiary and Upper Cretaceous)-presumed equivalents of Simi Conglomerate, Coal Canyon Formation, and Tuna Canyon Formation (Yerkes and Campbell, 1979; see also Colburn and Novack, 1989)
- Kgr** **Granitic rocks** (Cretaceous)-granodiorite to quartz diorite; calculated K/Ar age of biotite from sample on east wall of Nichols Canyon about 2000 ft north of mountain front is 98.6 my, of hornblende 103-105 my (Miller and Morton, 1980, Table 1, spl. 1).

Map Symbols

- ——— ——— Contact or mapped horizon—Long-dashed where approximately located, short-dashed where inferred
- —?— ——— Fault— Long-dashed where approximately located, short-dashed where inferred, dotted where concealed, queried where doubtful
- ← ——— ↑ ——— Anticline— Approximately located, dotted where concealed; showing crestline
- ——— ↓ ——— Syncline— Approximately located, dotted where concealed; showing troughline
- 70
—|— Strike and dip of inclined beds
- ⊕ 408 Exploratory well—Number refers to table 1, below
- * FH13 Fossil locality—F, macrofossil collection; f, microfossil collection; number refers to table 2, below

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Table 1 - DATA ON EXPLORATORY WELLS, HOLLYWOOD QUADRANGLE¹

MAP NO.	TS	RW	Sec.	OPERATOR	NAME/NUMBER	ELEV- ATION (ft)	TOTAL DEPTH (ft)	BOT- TOM ²
631	1	13	5	W.M. Sullivan	1	450	2410	Mu
636	1	13	17	ARCO O. & G.	Silver Lake Community 1-1	384	8054	Mm
636	1	13	19	Guiberson & Burke Co.	Texam-G & B-Stolkin- Cutter 1	270	6544	Mm
637	1	13	20	Occidental Petrol. Corp.	Occidental-Buttes- EH 1	380	4476	Mu
638	1	13	20	E. G. Burke	U-13 Comm. 1	324	4858	Mu
658	1	13	28	Aminoil USA	Civic Center 1	325	5932	Mu
659	1	13	29	Chevron USA	Bixel CH 1	334	4214	Mu
660	1	13	29	Chevron USA	Bixel-Miramar CH 1	433	3475	Mu
661	1	13	29	Chevron USA	SMJ CH 1	274	5117	M
662	1	13	30	Chevron USA	Roseberry CH 1	252	5064	Mu
663	1	13	31	ARCO O. & G.	West Adams CH 1	198	6501	Mu
664	1	13	32	Chevron USA	Salvation Army CH 1	258	6225	Mu
665	1	13	32	Chevron USA	Chevron-Occidental- Albany CH 1	235	5958	Mu
666	1	13	32	Chevron USA	Broadway CH 1	238	6220	Mu
667	1	13	32	ARCO O. & G.	W. Adams CH 2, RD 3	226	6880	Mu
680	1	14	11	Texaco, Inc.	Hollywood CH 1	337	4724	M
681	1	14	14	UNOCAL	Union-Paramount District U-14-1	307	5339	Mm
682	1	14	15	Chevron USA	L.A. City Fee CH 1	268	5984	Mm
683	1	14	15	Chevron USA	Wilshire Country Club CH 1	245	5947	M
684	1	14	16	Chevron USA	Vista CH 1	281	4545	Mu
685	1	14	16	Chevron USA	Fairfax High School CH 1	225	4563	Mu
686	1	14	16	Chevron USA	Vavreh CH 1	221	4370	Mu
687	1	14	17	Chevron USA	Laurel CH 1	256	7051	Mm
690	1	14	20	Chevron USA	Tower CH 1	142	6555	Mu
691	1	14	21	Shell CPI	Verne Community 1	200	7924	M?
692	1	14	22	Chevron USA	Highland CH 1	206	6000	Mu
693	1	14	23	Chevron USA	Wilton CH 1/RD 2	213	4927	Mu
694	1	14	24	Chevron USA	Hobart CH 1	246	5514	Mu
695	1	14	24	Chevron USA	Wilton CH 4	248	2504	Mu
696	1	14	25	Chevron USA	Wilton CH 1/RD	228	3816	Mu
697	1	14	25	Chevron USA	Wilton CH 5	256	2802	Mu
698	1	14	25	Chevron USA	Ambassador CH 1	240	7361	Mm
699	1	14	253	Chevron USA	Std.-Occidental- Wilton CH 3A	204	4288	Mu
700	1	14	25	UNOCAL	Union-Signal-Std. EH 29	201	5456	Mu
701	1	14	25	Aminoil USA	Homestead EH 1	230	5995	Mu
702	1	14	26	UNOCAL	Las Cienegas CH 22	160	3573	M?
703	1	14	27	Chevron USA	Highland CH 1	206	2087	Mu
704	1	14	27	UNOCAL	Pacific Electric 1	130	9512	Mu

MAP NO.	TS	RW	Sec.	OPERATOR	NAME/NUMBER	ELEV- ATION (ft)	TOTAL DEPTH (ft)	BOT- TOM ²
705	1	14	28	Utah-California Products Co.	101	195	2580	?
706	1	14	28	J. C. Pollack	1	200	1495	?
707	1	14	28	UNOCAL	Las Cienegas CH 20	166	3210	Mu
708	1	14	28	UNOCAL	Brasher 1	180	6660	M?
709	1	14	29	Chevron USA	Seibu CH 1	171	7467	Mu
710	1	14	29	Chevron USA	Saturn CH 1	131	11176	Mm
711	1	14	29	Chevron USA	Packard CH 1	155	7096	M
715	1	14	32	UNOCAL	Union-Occidental- Genesee EH 1	103	11655	M
716	1	14	33	Chevron USA	St. Elmo CH 1	123	7237	Mu
717	1	14	34	UNOCAL	Las Cienegas CH 21	159	2000	Mu
718	1	14	35	UNOCAL	Las Cienegas CH 25	198	5094	M
719	1	14	36	UNOCAL	Union-Signal-Texam U-19-1	215	9663	bc
720	1	14	35	UNOCAL	Fourth Ave. 17	205	9039	M?
721	1	14	36	UNOCAL	Union-Signal- Loyola EH 31	228	5115	Mu
722	1	14	36	UNOCAL	Union-Signal EH 28A	234	5255	Mu
723	1	14	36	UNOCAL	Union-Signal EH 30	194	6036	Mu
843	2	13	5	Chevron USA	Venice Comm. CH 1	225	6485	Mu
844	2	13	5	Chevron USA	Garey Comm. 1	219	5524	Mu
845	2	13	5	Chevron USA	Wall CH 1	235	6764	Mu
846	2	13	5	Chevron USA	Dana CH 1	205	8248	P
847	2	13	5	Chevron USA	Menlo CH 1	228	4512	Mu
848	2	13	6	ARCO	Hoover CH 1	208	4000	Mu
849	2	13	6	ARCO	St. James CH 1	218	6386	Mu
850	2	13	6	Chevron USA	Univ. Comm. CH 1	191	4829	Mu
851	2	13	6	Chevron USA	Dana CH 2	200	3700	Mu
852	2	13	7	Chevron USA	Sanborn Community 1/RD 3	203	10390	Mu
855	2	14	1	UNOCAL	Jefferson 35	165	8500	Mu
856	2	14	1	UNOCAL	Union-Signal-Las Cienegas EH 27A	197	6001	P
857	2	14	2	UNOCAL	Murphy 1	218	8723	bc/Mu
858	2	14	3	UNOCAL	Union-Signal-Std.- Wash. Blvd. EH 1	125	9166	Mu
859	2	14	3	Chevron USA	Dublin CH 1	126	7273	P
860	2	14	5	Chevron USA	Carnation CH 1	90	2600	P
861	2	14	5	Chevron USA	Std.-Signal-LA City Dept. Rec. & Parks CH 1	120	7872	P
862	2	14	5	Amazon Drlg.	Baldwin 1	116	6757	P
874	2	14	8	Royalty Sv.	Marlow-Burns 1	381	8787	Mu
875	2	14	8	Chevron USA	Cienegas 2	487	5172	P
876	2	14	9	Shell CPI	Baldwin Hills Community 1	331	13507	Mm
877	2	14	9	Amazon Drlg.	Baldwin 2	199	4076	P

<u>MAP</u> <u>NO.</u>	<u>TS</u>	<u>RW</u>	<u>Sec.</u>	<u>OPERATOR</u>	<u>NAME/NUMBER</u>	<u>ELEV-</u> <u>ATION</u> <u>(ft)</u>	<u>TOTAL</u> <u>DEPTH</u> <u>(ft)</u>	<u>BOT-</u> <u>TOM</u> ²
378	2	14	9	Chevron USA	Cienegas 1	450	5010	P
379	2	14	10	Chevron USA	PacTel CH 1	180	9876	P
380	2	14	15	Aminoil USA	Signal-Std.-La Tijera EH 1	144	9549	Mu
381	2	14	16	Chevron USA	Stocker 1	392	5701	P
382	2	14	17	Chevron USA	Baldwin-Cienega 105	363	12276	bc

¹ Data from Yerkes and Showalter, 1990.

² bc, basement complex; M, Miocene; m, middle; P, Pliocene; u, upper.

Table 2 - DATA ON FOSSIL LOCALITIES, HOLLYWOOD QUADRANGLE

<u>MAP NO</u> ¹	<u>TS</u>	<u>RW</u>	<u>Sec</u>	<u>COLL-</u> <u>ECTOR</u> ²	<u>AGE</u> ³	<u>MAP</u> <u>UNIT</u>	<u>SOURCE</u>
FH8	1	14	4	USGS	Mm	Tt	Hoots (1931)
FL1-16	1	13	5	UCLA	Mu	Tm	Lamar (1970)
FL3-16	1	13	5	UCLA	Mu	Tpn	Lamar (1970)
FL4-5	1	13	7	UCLA	Mu	Tpn	Lamar (1970)
fH101	1	14	3	USGS	Mm	Tt	Hoots (1931)

¹ F indicates macrofossil collection; f indicates microfossil collection.

² UCLA, Univ. California at Los Angeles; USGS, U.S. Geol. Survey.

³ M, Miocene; m, middle; u, upper.