

CALIFORNIA OIL AND GAS FIELDS

VOLUME II

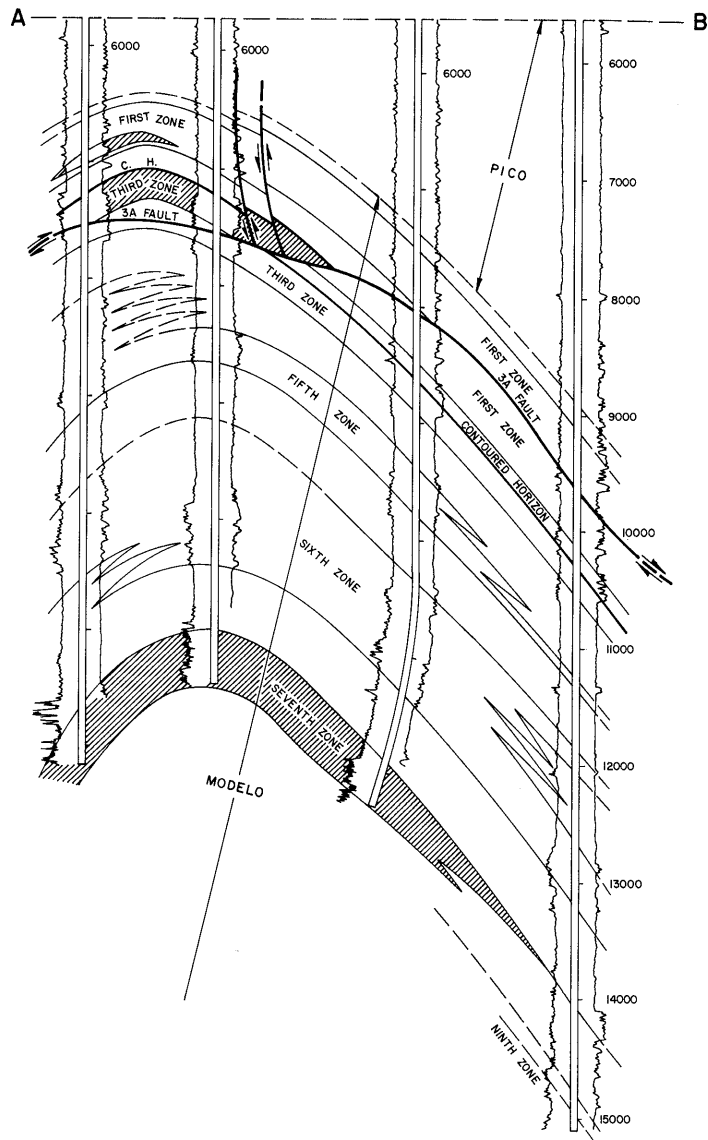
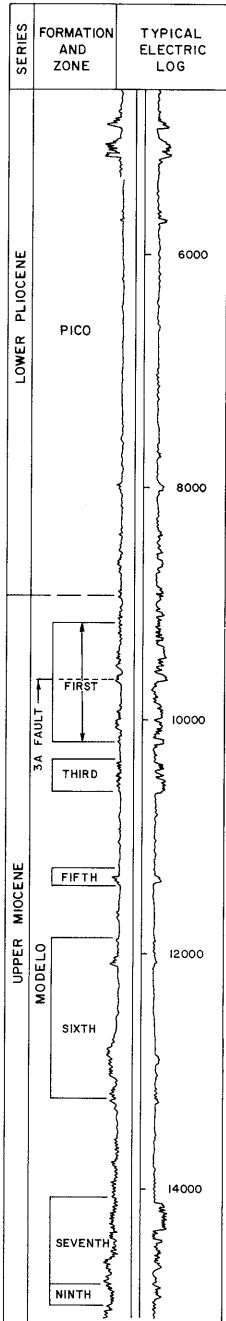
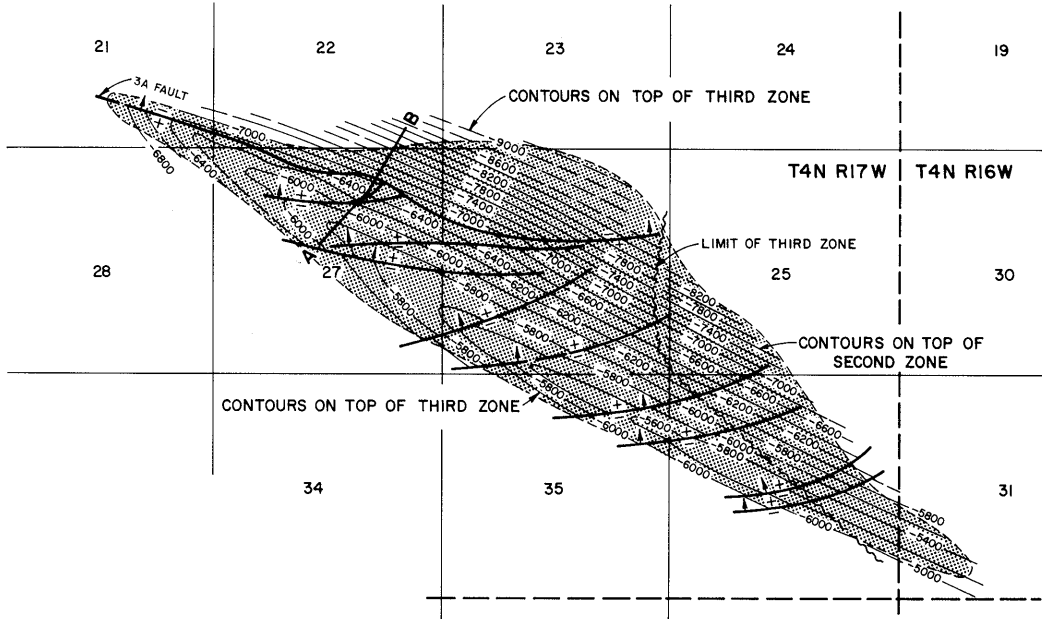
Southern, Central Coastal, and Offshore California

Sacramento

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Division of Oil and Gas

NEWHALL - POTRERO OIL FIELD



COUNTY: LOS ANGELES

NEWHALL- POTRERO OIL FIELD

Sheet 1 of 2

DISCOVERY WELL AND DEEPEST WELL

	Present operator and well designation	Original operator and well designation	Sec. T. & R.	B.&M.	Total depth (feet)	Pool (zone)	Strata & age at total depth
Discovery well	Sun Expl. & Prod. Co. "Rancho San Francisco" 1	Barnsdall Oil Co. "Rancho San Francisco" 1	26 4N 17W	SB	7,012	First	
Deepest well	Sun Oil Co. "Rancho San Francisco" 154	Sunray Mid-Continent Oil Co. "Rancho San Francisco" 154	27 4N 17W	SB	15,490		Modelo Miocene

POOL DATA

ITEM	POOL DATA					FIELD OR AREA DATA
	FIRST	SECOND	THIRD	FIFTH	SIXTH	
Discovery date	March 1937	February 1938	September 1938	June 1946	March 1945	
Initial production rates						
Oil (bbl/day)	118	631	790	336	557	
Gas (Mcf/day)	200	555	455	370	505	
Flow pressure (psi)						
Bean size (in.)						
Initial reservoir pressure (psi)	3,100	3,100	3,100	3,925	4,959	
Reservoir temperature (°F)	170	170	170	200	205	
Initial oil content (STB/ac.-ft.)						
Initial gas content (MSCF/ac.-ft.)						
Formation	Modelo	Modelo	Modelo	Modelo	Modelo	
Geologic age	Miocene	Miocene	Miocene	Miocene	Miocene	
Average depth (ft.)	6,500	6,900	7,400	9,300	9,700	
Average net thickness (ft.)	300	200	250	300	275	
Maximum productive area (acres)						

RESERVOIR ROCK PROPERTIES

Porosity (%)	17.7	17.7	17.7	11.0	11.0	
So _i (%)	70	70	70	60	65	
Sw _i (%)	30	30	30	40	35	
Sg _i (%)						
Permeability to air (md)	75	75	75	15	50	

RESERVOIR FLUID PROPERTIES

Oil:						
Oil gravity (°API)	34	35	34	26-42	31-41	
Sulfur content (% by wt.)	0.52	0.52	0.52	0.56	0.56	
Initial solution GOR (SCF/STB)	707	707	707	906	1,274	
Initial oil FVF (RB/STB)	1,358	1,358	1,358	1,548	1,681	
Bubble point press. (psia)	2,723	2,723	2,723	3,138	4,085	
Viscosity (cp) @ °F	0.72 @ 170	0.72 @ 170	0.72 @ 170	0.51 @ 200	0.25 @ 205	
Gas:						
Specific gravity (air = 1.0)						
Heating value (Btu/cu. ft.)						
Water:						
Salinity, NaCl (ppm)	6,000	6,000	6,000	6,800	6,000	
T.D.S. (ppm)						
R _w (ohm/m) (77°F)						

ENHANCED RECOVERY PROJECTS

Enhanced recovery projects	pressure maintenance ^{a/}	waterflood	waterflood	pressure maintenance	pressure maintenance	
Date started	1944	1969	1958	1952	1954	
Date discontinued	active	1981	active	active	active	
	waterflood			waterflood		
	1963			1981		
	active			active		

Peak oil production (bbl)						
Year						
Peak gas production, net (Mcf)						
Year						

Base of fresh water (ft.): 0 - 300

Remarks: ^{a/} Pressure maintenance injection into First, Second, and Third Zones.

Selected References: Hodges, F.C., and E.R. Murray-Aaron, 1943, Newhall-Potrero, Aliso Canyon, Del Valle and Oak Canyon Oil Fields: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 29, No. 1 (Reprint No. 2).
 Loofbourrow, J.S., Jr., 1952, Newhall-Potrero Oil Field: A.A.P.G.-S.E.P.M.-S.E.G. Guidebook, Joint Annual Meeting, Los Angeles.
 Mefferd, M.G., 1965, Newhall-Potrero Oil Field: Calif. Div of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 51, No. 2.
 Winterer, E.L., and D.L. Durham, 1962, Geology of Southeastern Ventura Basin, Los Angeles County, California: U.S. Geological Survey Prof. Paper 334-H.

DATE: May 1983

CALIFORNIA DIVISION OF OIL AND GAS

COUNTY: LOS ANGELES

NEWHALL-POTRERO OIL FIELD

Sheet 2 of 2

DISCOVERY WELL AND DEEPEST WELL

	Present operator and well designation	Original operator and well designation	Sec. T. & R.	B.&M.	Total depth (feet)	Pool (zone)	Strata & age at total depth
Discovery well							
Deepest well							

POOL DATA

ITEM	SEVENTH	NINTH				FIELD OR AREA DATA
Discovery date	April 1948	December 1947				
Initial production rates						
Oil (bbl/day)	430	55				
Gas (Mcf/day)	230	20				
Flow pressure (psi)						
Bean size (in.)						
Initial reservoir pressure (psi)	5,650	-				
Reservoir temperature (°F)	323	-				
Initial oil content (STB/ac.-ft.)						
Initial gas content (MSCF/ac.-ft.)						
Formation	Modelo	Modelo				
Geologic age	Miocene	Miocene				
Average depth (ft.)	11,806	14,200				
Average net thickness (ft.)	200	300				
Maximum productive area (acres)						1,080

RESERVOIR ROCK PROPERTIES

Porosity (%)	12.5	-				
So _i (%)	60	-				
Sw _i (%)	40	-				
Sg _i (%)		-				
Permeability to air (md)	24	-				

RESERVOIR FLUID PROPERTIES

Oil:						
Oil gravity (°API)	30-33	-				
Sulfur content (% by wt.)	0.81	-				
Initial solution GOR (SCF/STB)	390	-				
Initial oil FVF (RB/STB)	1.351	-				
Bubble point press. (psia)	2,627	-				
Viscosity (cp) @ °F	86 @ 323	-				
Gas:						
Specific gravity (air = 1.0)						
Heating value (Btu/cu. ft.)						
Water:						
Salinity, NaCl (ppm)	6,800	6,000				
T.D.S. (ppm)						
R _w (ohm/m) (77°F)						

ENHANCED RECOVERY PROJECTS

Enhanced recovery projects	pressure maintenance					
Date started	1954					
Date discontinued	active					
	waterflood					
	1978					
	active					

Peak oil production (bbl)						3,611,892
Year						1955
Peak gas production, net (Mcf)						24,780,791
Year						1963

Base of fresh water (ft.):

Remarks:

Selected References:

DATE: May 1987

CALIFORNIA DIVISION OF OIL AND GAS