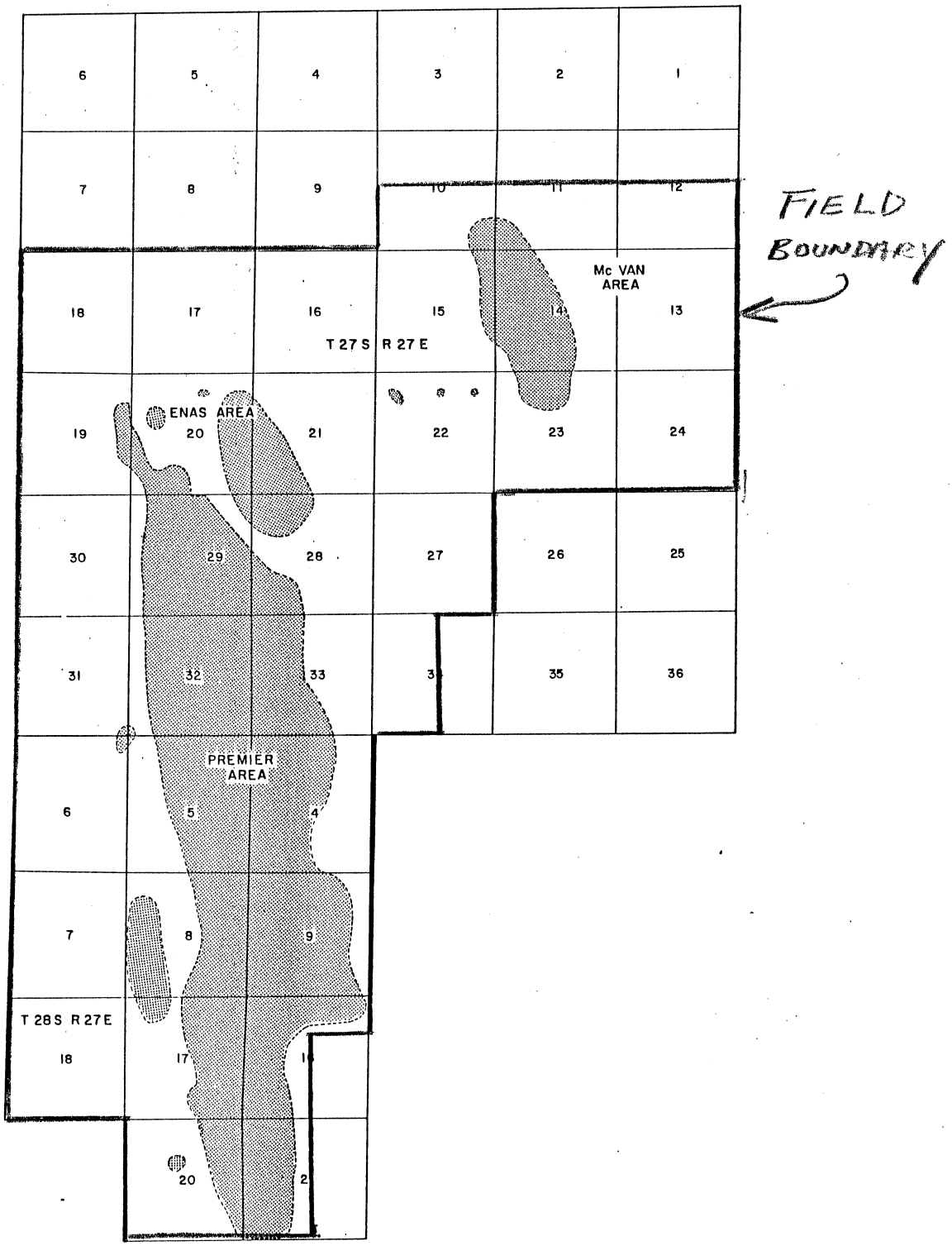
POSO CREEK OIL FIELD
Index Map



MAY 1980

COUNTY: KERN

POSO CREEK OIL FIELD

(SEE AREAS FOR ADDITIONAL INFORMATION)

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	Chevron U.S.A. Inc. No. 2	Standard Oil Co. of Calif. No. 2	S 28S 27E	MD	2,822	Chanac	
Deepest well	Chevron U.S.A. Inc. No. 34	Standard Oil Co. of Calif. No. 34	S 28S 27E	MD	7,187		basement Late Jurassic(?)

POOL DATA

ITEM	CHANAC					FIELD OR AREA DATA
Discovery date	December 1920					
Initial production rates						
Oil (bbl/day)	90					
Gas (Mcf/day)						
Flow pressure (psi)	on pump					
Bean size (in.)						
Initial reservoir pressure (psi)	1,050-1,200					
Reservoir temperature (°F)	110-115					
Initial oil content (STB/ac.-ft.)	1,325-1,610					
Initial gas content (MSCF/ac.-ft.)	360					
Formation	Chanac					
Geologic age	Miocene					
Average depth (ft.)	2,500					
Average net thickness (ft.)	250					
Maximum productive area (acres)						4,285
RESERVOIR ROCK PROPERTIES						
Porosity (%)	25-41(28*)					
S_{oi} (%)	45-65					
S_{wi} (%)	35-55					
S_{gi} (%)						
Permeability to air (md)	125-7,600(1,200*)					
RESERVOIR FLUID PROPERTIES						
Oil:						
Oil gravity (°API)	11-15					
Sulfur content (% by wt.)	0.98					
Initial solution GOR (SCF/STB)	270					
Initial oil FVF (RB/STB)	1.05					
Bubble point press. (psia)	1,200**					
Viscosity (cp) @ °F	6,900 @115					
Gas:						
Specific gravity (air = 1.0)	0.56					
Heating value (Btu/cu. ft.)	996					
Water:						
Salinity, NaCl (ppm)	400*					
T.D.S. (ppm)	1,400					
R_w (ohm/m) (77°F)	6.7					
ENHANCED RECOVERY PROJECTS						
Enhanced recovery projects	cyclic steam					
Date started	1965					
Date discontinued	active					
Peak oil production (bbl)						2,891,023
Year						1964
Peak gas production, net (Mcf)						481,624
Year						1980

Base of fresh water (ft.): See areas.

Remarks:

Selected References: See areas.

DATE: January 1983 ** Estimated value

CALIFORNIA DIVISION OF OIL AND GAS

COUNTY: KERN

POSO CREEK OIL FIELD
PREMIER AREA

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	Chevron U.S.A. Inc. No. 2	Standard Oil Co. of Calif. No. 2	S 28S 27E	MD	2,822	Chanac	
Deepest well	Chevron U.S.A. Inc. No. 34	Standard Oil Co. of Calif. No. 34	S 28S 27E	MD	7,187		basement Late Jurassic(?)

POOL DATA

ITEM	MACOMA	BASAL ETCHEGOIN	CHANAC	KELLY 2		FIELD OR AREA DATA
Discovery date	November 1959	June 1944	December 1920	June 1946		
Initial production rates						
Oil (bbl/day)		125	90	130		
Gas (Mcf/day)	973	-	-	-		
Flow pressure (psi)	638	on pump	on pump	on pump		
Bean size (in.)	1/4	-	-	-		
Initial reservoir pressure (psi)	-	500-1,200	1,050-1,200	1,300		
Reservoir temperature (°F)	110	105-111	110-115	119		
Initial oil content (STB/ac.-ft.)	-	1,325-1,629	1,325-1,610	1,000**		
Initial gas content (MSCF/ac.-ft.)	-	360	360	-		
Formation	Etchegoin	Etchegoin	Chanac	Santa Margarita		
Geologic age	Pliocene	Pliocene	Miocene	Miocene		
Average depth (ft.)	2,350	2,400	2,500	3,400		
Average net thickness (ft.)	7	100	250	40		
Maximum productive area (acres)						3,610
RESERVOIR ROCK PROPERTIES						
Porosity (%)	31**	27-43 (30*)	25-41 (28*)	29**		
S_{oi} (%)	-	45-75	45-65	-		
S_{wi} (%)	-	25-55	35-55	55**		
S_{gi} (%)						
Permeability to air (md)	1,900**	150-7,700 (1,200*)	125-7,600 (1,200*)	1,600**		
RESERVOIR FLUID PROPERTIES						
Oil:						
Oil gravity (°API)	-	11-14	11-15	15		
Sulfur content (% by wt.)	-	0.98	0.98	-		
Initial solution GOR (SCF/STB)	-	270	270	20**		
Initial oil FVF (RB/STB)	-	1.05	1.05	1.02**		
Bubble point press. (psia)	-	1,200**	1,200**	260**		
Viscosity (cp) @ °F	-	6,800-9,100 @100	6,900 @115	-		
Gas:						
Specific gravity (air = 1.0)	-	0.56	0.56	0.55**		
Heating value (Btu/cu. ft.)	-	996	996	-		
Water:						
Salinity, NaCl (ppm)	140	300-550	400*	-		
T.D.S. (ppm)	1,200	650-1,100	1,400*	-		
R_w (ohm/m) (77°F)	6.5	4.5-12	6-7	-		
ENHANCED RECOVERY PROJECTS						
Enhanced recovery projects		cyclic steam	cyclic steam			
Date started		1965	1965			
Date discontinued		active	active			
		steamflood				
		1970				
		1970				
		steamflood				
		1982				
		active				
Peak oil production (bbl)						2,810,249
Year						1964
Peak gas production, net (Mcf)						480,968
Year						1980

Base of fresh water (ft.): 1,600-2,000 (Base of fresh water is based partially on high boron content).

Remarks:

Selected References:

Updike, F. H., Premier Area of the Poso Creek Oil Field: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Field, Vol. 24 No. 4 (1939).

Weddle, J. R., Poso Creek Oil Field: Premier and Enas Areas: Calif. Div. of Oil and Gas, Summary or Operations -- Calif. Oil Fields, Vol. 45 No. 2 (1959).

DATE: January 1983 * Average value ** Estimated value

CALIFORNIA DIVISION OF OIL AND GAS

COUNTY: KERN

POSO CREEK OIL FIELD

ENAS AREA

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	Petro-Lewis Corp. "Agey" 1	Agey Ptroleum Co. "Agey" 1	28 27S 27E	MD	2,070	Chanac	
Deepest well	George F. Getty, Inc. "Maryland" 1	Same as present	20 27S 27E	MD	4,434		Olcese Miocene

POOL DATA

ITEM	BASAL ETCHEGOIN	CHANAC				FIELD OR AREA DATA
Discovery date	November 1938	December 1929				
Initial production rates						
Oil (bbl/day)	75	25				
Gas (Mcf/day)						
Flow pressure (psi)	on pump	on pump				
Bean size (in.)						
Initial reservoir pressure (psi)	500-750	855				
Reservoir temperature (°F)	100-102	103				
Initial oil content (STB/ac.-ft.)	725-1,629	1,552				
Initial gas content (MSCF/ac.-ft.)	300**	300**				
Formation	Etchegoin	Chanac				
Geologic age	Pliocene	Miocene				
Average depth (ft.)	1,800	1,900				
Average net thickness (ft.)	90	150				
Maximum productive area (acres)						260
RESERVOIR ROCK PROPERTIES						
Porosity (%)	27-45	25-41 (30*)				
S_{oi} (%)	45-75	70**				
S_{wi} (%)	25-55	30**				
S_{gi} (%)						
Permeability to air (md)	150-7,700	125-7,100 (1,700*)				
RESERVOIR FLUID PROPERTIES						
Oil:						
Oil gravity (°API)	12	13				
Sulfur content (% by wt.)	0.98	0.98				
Initial solution GOR (SCF/STB)	20**	20**				
Initial oil FVF (RB/STB)	1.01	1.0				
Bubble point press. (psia)						
Viscosity (cp) @ °F						
Gas:						
Specific gravity (air = 1.0)	0.52**	0.52**				
Heating value (Btu/cu. ft.)						
Water:						
Salinity, NaCl (ppm)	400-1,100	400-1,100				
T.D.S. (ppm)						
R_w (ohm/m) (77°F)						
ENHANCED RECOVERY PROJECTS						
Enhanced recovery projects		cyclic steam				
Date started		1966				
Date discontinued		active				
Peak oil production (bbl)						83,504
Year						1978
Peak gas production, net (Mcf)						167,429
Year						1958

Base of fresh water (ft.): 2,200

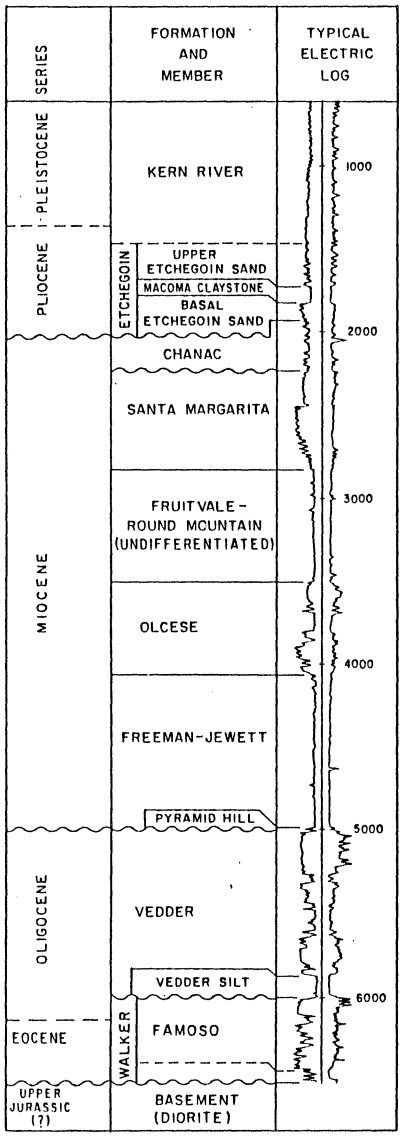
Remarks:

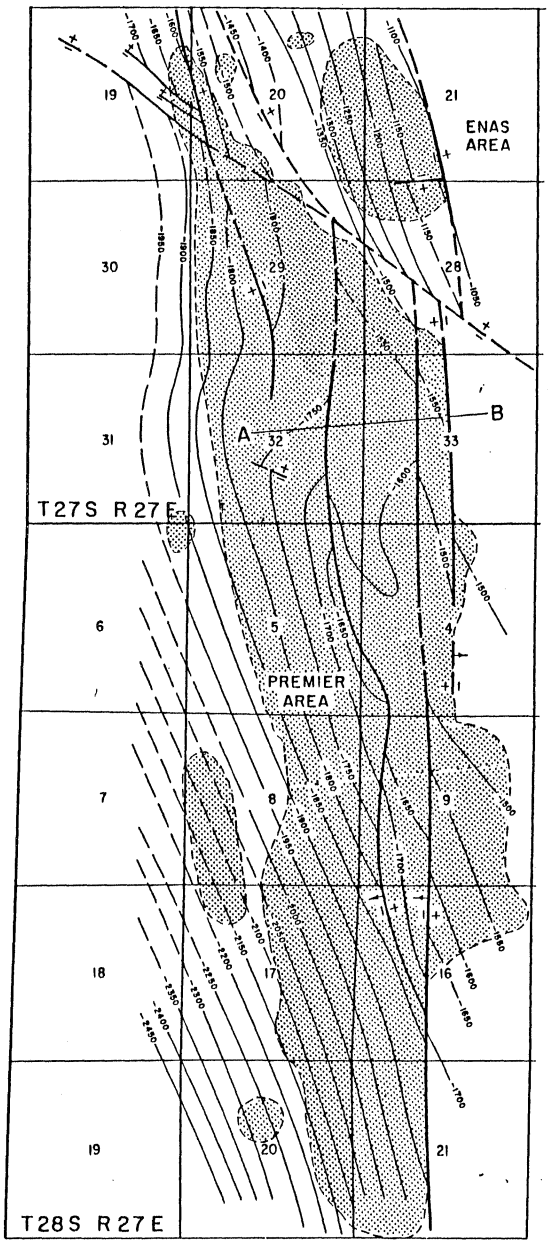
Selected References: Weddle, J. R., Poso Creek Oil Field, Premier and Enas Areas: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 45 No. 2 (1959).

DATE: January 1983 ** Estimated value * Average value

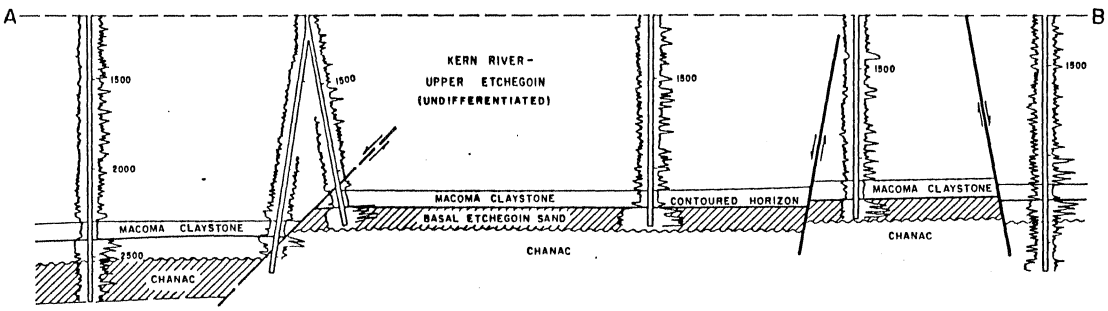
CALIFORNIA DIVISION OF OIL AND GAS

POSO CREEK OIL FIELD
Enas & Premier Areas





CONTOURS ON BASE OF MACOMA CLAYSTONE



MAY 1980

COUNTY: KERN

POSO CREEK OIL FIELD

McVAN AREA

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	Petro-Lewis Corp. "Trico" 2	Vedder Pet. Corp., Ltd. "McVan" 2	14 27S 27E	MD	1,234	Etchegoin	
Deepest well	Getty Oil Co. "Enas Fee" 15-15	Same as present	15 27S 27E	MD	5,540		basement Jurassic

POOL DATA

ITEM	BASAL ETCHEGOIN	SANTA MARGARITA	PYRAMID HILL a/			FIELD OR AREA DATA
Discovery date	March 1932	February 1977	November 1949			
Initial production rates						
Oil (bbl/day)	26	8	155			
Gas (Mcf/day)						
Flow pressure (psi)	on pump	on pump	on pump			
Bean size (in.)						
Initial reservoir pressure (psi)	520	748	1,400			
Reservoir temperature (°F)	90	110	118			
Initial oil content (STB/ac.-ft.)	600-1,473	-	-			
Initial gas content (MSCF/ac.-ft.)		-				
Formation	Etchegoin	Santa Margarita	Freeman-Jewett			
Geologic age	Pliocene	Miocene	Miocene			
Average depth (ft.)	1,150	1,800	3,150			
Average net thickness (ft.)	40	30	30			
Maximum productive area (acres)	405	15	5			415
RESERVOIR ROCK PROPERTIES						
Porosity (%)	32-40 (34*)	24-31	29**			
S_{oi} (%)	45-65	30-58	60**			
S_{wi} (%)	35-55	37-53	40**			
S_{gi} (%)		0				
Permeability to air (md)	1,130-6,000 (1,200*)	1,260-2,710	1,500**			
RESERVOIR FLUID PROPERTIES						
Oil:						
Oil gravity (°API)	12-14	12.8	17			
Sulfur content (% by wt.)	0.8	-	-			
Initial solution GOR (SCF/STB)		-				
Initial oil FVF (RB/STB)		-				
Bubble point press. (psia)		-				
Viscosity (cp) @ °F	2,000 @90	1,000**	-			
Gas:						
Specific gravity (air = 1.0)		-				
Heating value (Btu/cu. ft.)		-				
Water:						
Salinity, NaCl (ppm)	60-100	1,839**	-			
T.D.S. (ppm)	220-350	2,060**	-			
R_w (ohm/m) (77°F)	19-27	2.8**	-			
ENHANCED RECOVERY PROJECTS						
Enhanced recovery projects	cyclic steam					
Date started	1964					
Date discontinued	active					
	steamflood					
	1978					
	active					
Peak oil production (bbl)	529,985		2,261			529,985
Year	1982		1950			1982
Peak gas production, net (Mcf)						
Year						

Base of fresh water (ft.): 1,900-2,100 (Note: A single water analysis from the Walker zone tested fresh, indicating that it may be recharged).

Remarks: a/ The Pyramid Hill was productive for a short time in one well.

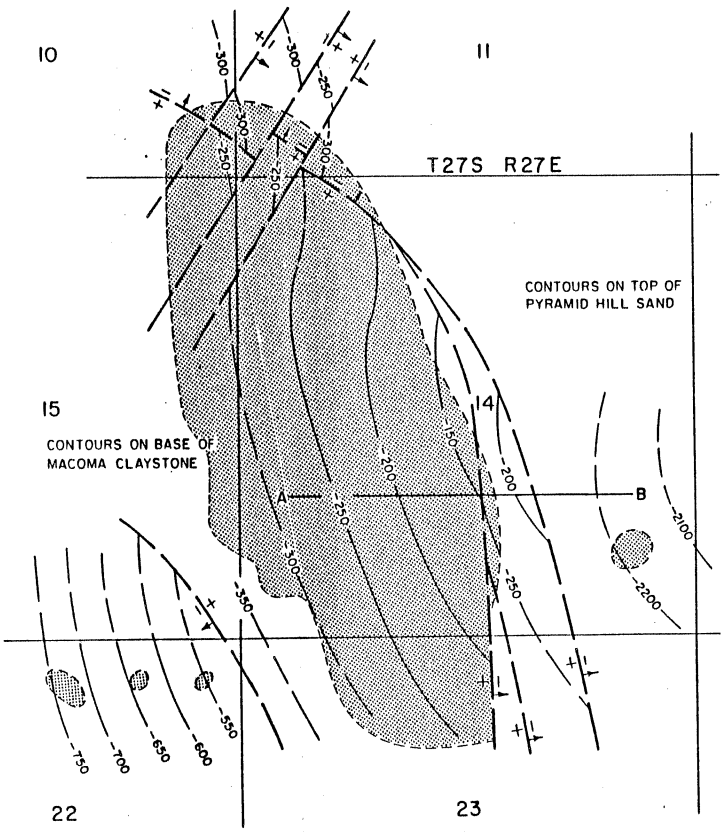
Selected References: Matthews, J. F., McVan Area of Poso Creek Field: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 43 No. 1 (1957).

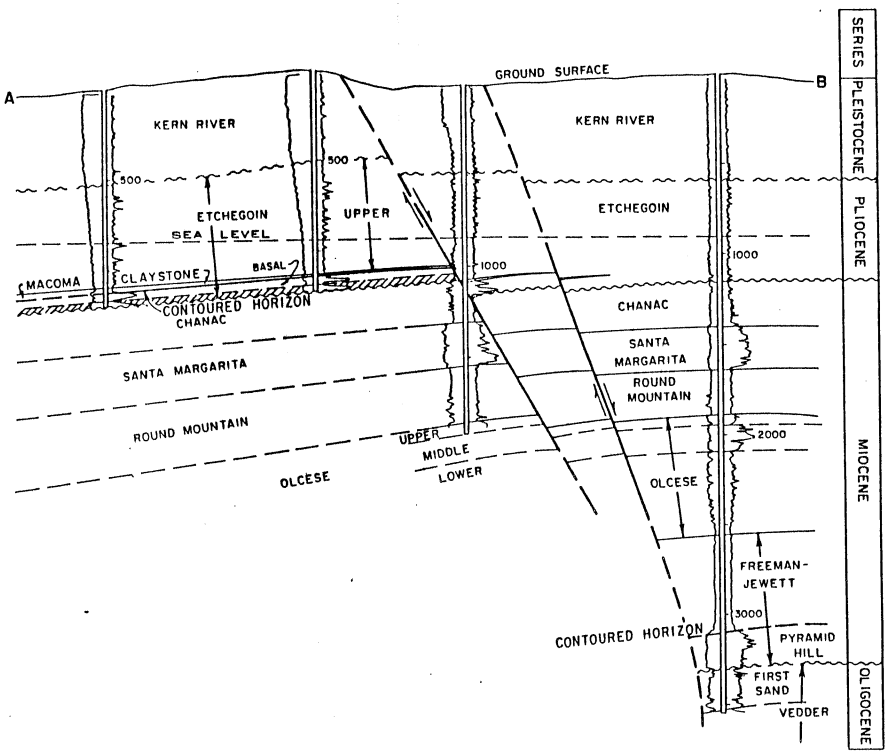
Welge, E. A., Poso Creek Oil Field, McVan Area: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 59 No. 1 (1973).

DATE: January 1983 * Average value ** Estimated value

CALIFORNIA DIVISION OF OIL AND GAS

POSO CREEK OIL FIELD
McVan Area





JUNE 1981

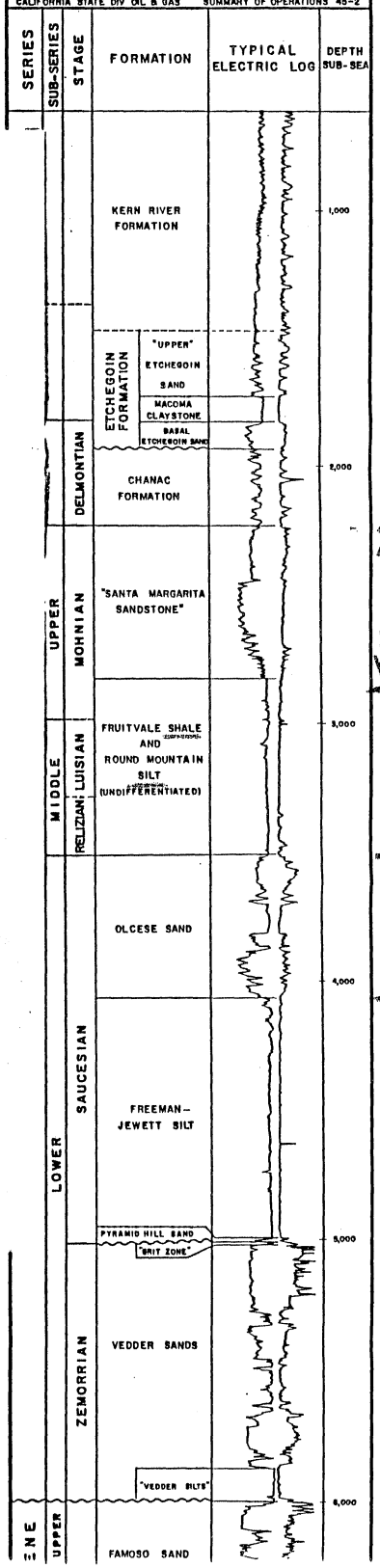
PLATE V

TYPICAL ELECTRIC LOG
& STRATIGRAPHIC COLUMN

POSO CREEK OIL FIELD

KERN COUNTY, CALIFORNIA

CALIFORNIA STATE DIV OIL & GAS SUMMARY OF OPERATIONS 45-2



Aquifer presently exempted

Proposed Aquifer exemption

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.

MAIN OFFICE: 4100 PIERCE ROAD, BAKERSFIELD, CA. 93308 PHONE 327-4911

Berry Ventures
P. O. Box 5182
Bakersfield, California 93388

Date Reported: 7/29/85
Date Received: 7/18/85
Laboratory No.: 11916

WATER ANALYSIS

Sample Description: New Hope #1 Olcese Fm. H_2O

Constituents	mg/liter
Calcium	109.
Magnesium	18.
Sodium	1420.
Potassium	2080.
Carbonate	0.
Bicarbonate	461.
Chloride	3975.
Sulfate	<5.
Nitrate	0.4
Iron	0.47
Manganese	0.35
Copper	0.01
Total Dissolved Solids	8130.
Boron	11.5
Silica	56.
Hardness as $CaCO_3$	347. (20.2 gr/gal)
Electrical Conductivity, Micromhos/cm @ 25 C	13100.
Resistivity, Ohm M^2/M	0.76
pH	8.1

RECEIVED
JUL 29 1985
DIVISION OF OIL & GAS

B C LABORATORIES, INC.

BY J. J. Eglin
J. J. Eglin