Well Records for Artificial Penetration #5

Souza #1-36

(API No. 1906032)

FORM 159 (9-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Coalinga, California, May 26, 19 52

OPEN TO INSPECTION

Mr. M. H. Fuller, Agent
L. M. Lockhart
Box 165
Burrel, California

OPEN TO INSPECTION

Dear Sir

Your report of abandonment of Well No. "Souza" 1-36,
Sec. 36, T. 14 S., R. 12 E., M. D. B. & M., ——— oil field,
Fresno County, dated February 20, 1952, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

OK 5-27-52 O.H.

GWH:ef
Orig: Company, L.A.
cc: Mr M H Fuller

R. D. BUSH
State Oil and Gas Supervisor

By G. G. Fence
Deputy Supervisor

40779 3 51 6900 SFO

FORM 100.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE
FILL THIS BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator L. H. LOCKHART Field ~~Panoche Creek Area~~, Fresno County

Well No. "Souza" 1-36 Sec. 36, T. 14S, R. 12E, M. D. & M.

Location 660' S. and 660' W. from East ¼ Corner of Section 36-14/12

Elevation above sea level Ground 419.2 (Surveyed) feet.

All depth measurements taken from top of Kelly Bushing which is 12.5 feet above ground.

K. B. Elev. 431.7'

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date February 20, 1952 Signed Glenn McEarl

Glenn H. Earl (Engineer or Geologist) H. L. Fuller (Superintendent) Title Engineer (President, Secretary or Agent)

Commenced drilling July 13, 1951 Completed drilling Sept. 4, 1951 Drilling tools ~~Cable~~ Rotary

Total depth 10,635' Plugged depth 10' to surface

Junk None Plug from 396' to 350'

Plug from 1200' to 1146'.

GEOLOGICAL MARKERS	DEPTH

Commenced producing Never produced (date) Flowing/gas lift/pumping (cross out unnecessary words)

Abandoned: Sept. 5, 1951

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production						
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforations
14"	376'	Surface	47.14#	New	Smls.	J	20"	650	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Recorded 10,634'-370'

Electrical Log Depths ..... (Attach Copy of Log)

Form 103 Page One

DIVISION OF OIL & GAS

HISTORY OF OIL OR GAS WELL

Operator: L. H. Lockhart
Field: Panoche Creek Area, Fresno County
Well: "Souza" 1-36
Loc. Sec. 36-T14S-R12E-MDB&M
Date: February 20, 1952
Signed: Glenn M. Earl
Title:

Glenn M. Earl, Engineer
Fowler Drilling Co., Contractor
H. H. Fuller, Lockhart Superintendent
C. D. Chase, Fowler Superintendent

Casing & Hole Record

14" New 47.94# Smls. SJ Surface casing cemented at 370' in 20" hole with 650 sax cement.
10-5/8" hole from 666' to 8315'.
9-7/8" hole from 8315' to 9578'.
7-5/8" hole from 9578' to 10,635'.
Total Depth 10,635'.

NOTE: All depth measurements from Kelly Bushing.
Elevations: Ground 419.2' (Surveyed) K.B. 431.7'.

DATE 1951	REMARKS
June 27	Andersen & Anderson, Surveyors of Fresno, surveyed well location @ 660' S. & 660' W. from E. 1/4 corner of Section 36-14/12.
July 2	Excavating sump. Building roads. Digging cellar.
July 3	Preparing location as above.
July 4	Holiday - work suspended.
July 5	Location work continued.
July 6	Cellar and roads completed. Digging sump.
July 7	Location completed. Idle.
July 8	Location completed. Idle.
July 9	Location completed. Watering roads.
July 10	Moving in Fowler Drilling Co. equipment: Waldrip mast, Emsco J-1500 Draw-Works, 4 General Motor "Jimmie" Motors

RECEIVED 1952

WELL HISTORY "Souza" 1-36 (Cont'd).

1951 July 10 (Cont'd)	backed up with Torque Converters, one new 10" oil Well mud pump, one 14" mud pump, 4-1/2" drill-pipe.
July 11	Rigging up Fowler Drilling Co. equipment.
July 12	Rigging up Fowler Drilling Co. equipment.
July 13	Finished rigging up. Dug rat-hole. Spudded in with 20" Smith rock bit through 22" conductor pipe at 8 o'clock P.M. 7-13-51. Made up 7-5/8" drill-collars. Mixed mud and drilled 20" hole from 0' to 85'. Surface sand and gravel.
July 14	Drilled 20" hole from 85' to 590'. Added two 6-5/8" drill-collars. (83'). From 75' to 115'. Pea gravel and sand. From 115' to 150'. Sand and gravel. From 150' to 225'. Hard sand. From 225' to 376'. Shale, streaks sand and gravel. From 376' to 590'. Shale. Eastman Drill-Pipe Survey at 115' @ 0° 30'. At 212' @ 0° 15'. At 322' @ 0° 30'. At 520' @ 0° 30'. Average mud weight 71#. Viscosity high. Average pump pressure 200#. Average weight on bit @ 3 tons.
July 15	Drilled 20" hole from 590' to 666'. Eastman Drill-Pipe Survey at 620' @ 1° 0'. Average mud weight 75#. Viscosity high. Average pump pressure 200#. Average weight (bit) 3 tons. Measured pipe out of hole at 666'. O. K. Ran drill-pipe. Circulated and conditioned mud and hole. Pulled out to run surface casing. Surface pipe would not go below 105'. Pulled pipe to ream hole. Moved crown blocks and cleaned out hole to 666'. Pulled out. Casing would not go below 230'. Pulled casing.
July 16	Finished pulling casing. Went in hole with 20" Smith bit and 20-1/2" Grant 3-point reamer. Reamed hole from 0' to 666'. Mud wt. 72-74#. Viscosity high. Pulled out, cleaned bit and reamer, ran back to bottom. Circulated and conditioned mud. Pulled out to run pipe. Surface casing stuck at 376'. Unable to move. Cemented 376' (9 joints) of New 14" 47.5# Arm. slip-joint welded casing, equipped with Baker cement guide shoe, with 450 sacks Permanente Type "G" Construction cement. Displaced cement with 360 cu. ft.

WELL HISTORY "[illegible]" 1-36 (Cont'd.)

19[illegible]
July 16 (Cont'd.)

drilling fluid. Mixing time 35 minutes. Displacement time 20 minutes. Approximately 5 cu. ft. cement returns to surface. Average 10# slurry. Cement fell away. Let cement set two hours and then did 200 sack "out-side job" through 2" pipe. Filled annulus to surface. Job completed with Halliburton Power Equipment and bulk cement @ 7:40 P.M. Cleaned [illegible], ditch, and pits.

July 17

Standing cemented. Rigging up equipment. Landed 14" surface pipe at 9:00 A.M. Installed and tested Blow-Out Preventer with 750# pressure for 15 minutes. Held O. K. Made up 10-5/8" bit on 100' of drill-collars. Found top of cement at 569' at 10:00 P.M. Circulated and conditioned mud. Tested casing and Blow Out Preventer with 750# pressure for 15 minutes. O. K.

July 18

Drilled 10-5/8" hole from 666' to 1541'.
From 666' to 1050' @ shale with streaks of sand.
From 1050' to 1541' @ shale with streaks sandy shale.
Eastman Drill-Pipe Survey at 750' @ 0° 30'; 860' @ 1° 0'; 960' @ 0° 50'; 1000' @ 0° 45'; 1100' @ 0° 30'; 1250' @ 0° 35'; 1349' @ 0° 35'; 1440' @ 0° 10'; 1530' @ 0° 20'. Mud weight 73#, Viscosity 50, pump pressure 500#.

July 19

Drilled 10-5/8" hole from 1541' to 2354'.
From 1541' to 1682' @ shale with streaks sand.
From 1682' to 1907' shale.
From 1907' to 2354' sandy shale, shale, shale and shells. Eastman Drill-Pipe Survey at 1683' @ 0° 15'; 1782' @ 0° 15'; 1882' @ 0° 20'; 1987' @ 0° 50'; 2070' @ 0° 30'; 2100' @ 0° 00'; 2201' @ 0° 10'; and at 2354' @ 0° 15'.
Average mud weight 75#. Viscosity 50.
Pump pressure 750#. Average drilling weight 3-1/2 tons. Sand content 5%. Water loss 12 c.c. Bit No. 1 drilled from 0' to 666' @ 20" Smith. Bit No. 2 (10-5/8" OSC-3 Hughes) in hole at 1682'.

July 20

Drilled 10-5/8" hole from 2354' to 2872'.
2354' to 2535' brown shale, coarse sand
2535' to 2657' shale with streaks sand. Hard.
2657' to 2872' blue shale, shells.
Eastman Drill-Pipe Survey at 2459' @ 0° 00'.
At 2559' @ 0° 00'. At 2677' @ 0° 10'. at 2750 @ 0° 00'. At 2840' @ 0° 05'.

WELL HISTORY "Souza" 1-36 (Cont'd)

1951

July 20 — Mud 77#; Viscosity 45; Sand 5%; Water Loss 12-14 c.c. Pulled Bit No. 3 at 2335'. Total footage 703' in 13-1/4 hours. Bit dull (OSC-3 Hughes) in at 2305'; Out at 2057' @ 274' in 10 hours. Bit dull. Bit No. 5 (Hughes OSC-2) in hole at 2057'.

July 21 — Drilled 10-5/8" hole from 2072' to 3520'. 2072' to 2950'; soft shale; 2950' to 3201'; hard brown shale; 3201' to 3520'; shale. Eastman Drill Pipe Survey at 2931' @ 1° 15'. At 3020' @ 0° 15'. At 3110' @ 1° 0'. At 3201' @ 0° 50'. At 3312' @ 0° 45'. At 3413' @ 1° 00'. At 3505' @ 0° 50'. Mud 70#; Viscosity 55; Sand 4.5%; P. P. 1,000#. Water Loss 9.5 c.c. Wall cake 3/32. Pulled bit No. 5 at 3201'. Total footage @ 592' in 9-1/2 hours. Bit dull. Bit No. 6 in hole at 3201'; out at 3520'. OSC-2 Hughes made 327' in 11-1/4 hours. (Bit No. 6) Pulled out to run 2-cone Smith Bit to straighten hole.

July 22 — Drilled 10-5/8" hole from 3520' to 3893'. From 3520' to 3616' to 3770' brown shale; 3770' to 3893' brown shale with some shells. E.D.P.S. at 3697' @ 0° 50'. Average mud weight 75#, Viscosity 45 sec. Sand 2.4-3.4. Water Loss 8-10 c.c. Wall cake thickness 3/32". Pump pressure 1050#. Smith 2-cone bit in hole.

Peters Formation Logging Service Co. began logging and collecting Ditch Samples at 10-ft. intervals at 3936'. Peters Personnel: Bert Dunn, Geologist
Barbarick, Logging Engineer
Stephens, Logging Engineer
Well was logged by Peters Service from 3936' to 10,634'. (Total Depth @ driller 10,634'. T.D. @ Schlumberger @ 10,635'.)

July 23 — Drilled 10-5/8" hole from 3893' to 4291'. From 3893' to 3915' hard brown shale, streaks sand. From 3915' to 4210' shale with streaks sand. From 4210' to 4220' sandy shale. From 4220' to 4291' black shale. E.D.P.S. at 3958' @ 1° 00'. At 4080' @ 1° 00'. At 4171' @ 1° 00'. At 4260' @ 0° 45'. Mud 76-79#. Viscosity 47-50. Sand 3.8%. Water Loss 7.5-9.0 c.c. Wall cake thickness 3/32". Pulled bit #7 (Smith 2-cone) at 3:00 a.m. Made 410' in 20 hours. Dull. Checked E.D.P. Ran bit #8 (Security C-2) and drilled from 3938' to 4291'. Total 353' in 14-1/2 hours. Pulled at 11:00 p.m.

DIVISION OF OIL AND GAS
RECEIVED
MAY 6 1952
COALINGA, CALIFORNIA

WELL HISTORY "[illegible]" 1-36 (Cont'd)

1951
July 23 (Cont'd) and serviced drill-collars. Checked B.O.P. Ran Bit No. 8 (Re-run Hughes OSC-3) at 4291'.

July 24 Drilled 10-5/8" hole from 4291' to 4418'. From 4291' to 4382' shale, streaks sand. From 4382' to 4418', shale and sandy shale. S.D.F.S. at 4352' @ 1° 00'. Mud 77-80#. Viscosity 55. Sand 1.5-2.0% Water Loss 7.5 c.c. Cake 3/32". Bit No. 8 out at 4418', total 127' in 6-3/4" hours. Dull. Rotary table broke down at 10:30 a.m. Pulled out. Waiting for parts. Flushed around. Cleaned cellar. Installed thrust bearing and oil seal in pump engines. Installed new packing in wash pipe in swivel. Cleaned up rig.

July 25 Drilled 10-5/8" hole from 4418' to 4715'. From 4418' to 4503', shale with streaks sand. From 4503' to 4542', silty shale. From 4542' to 4657', shale and shells. From 4657' to 4715', shale. S.D.F.S. at 4480' @ 1° 00'. At 4563' @ 0° 30'. At 4685' @ 0° 45'. Mud 75-81#. Viscosity 45-50. Sand 3-5%. Temperature 135°. Water Loss 7.5-8.0 c.c. Wall cake 3/32". Rotary table repaired at 1:00 a.m. In hole at 2:30 a.m. with Bit No. 9 (Reed 21R) Conditioned mud and drilled to 4624'. Total 206' in 13 hours. Dull. Pulled out. Checked B.O.P. Moved drilling line and serviced drill-collars. Ran bit No. 10 (Hughes OSC-3). Conditioned mud and drilled from 4624' to 4715'.

July 26 Drilled 10-5/8" hole from 4715' to 5078'. From 4715' to 4950', shale. 4950' to 4990' shale. 4990' to 5078', sandy shale. S.D.F.S. at 4760' @ 1° 00'. At 4920' @ 0° 30'. At 5017' @ 0° 30'. Mud 80-83#. Viscosity 45-60. Sand content 2.5-3.5%. Water Loss 7-9 c.c. Cake 2/32". Pulled Bit No. 10 at 12:00 noon at 4970'. Total hole drilled with Bit No. 10 @ 100' in 11-1/4 hours. Dull. Bit No. 11 (OSC-3 Hughes) in hole at 4970' at 4:00 p.m. Drilling.

July 27 Drilled 10-5/8" hole from 5078' to 5363'. From 5078' to 5215', shale. From 5215' to 5329', shale, sand, shells. From 5329' to 5363', shale with streaks sand. S.D.F.S. at 5147' @ 1° 00'. At 5259' @ 1° 00'. At 5363' @ 1° 30'. Mud 81#. Viscosity 47-50. Sand 3-4%. Water Loss 8-9 c.c. Wall Cake 2/32". Pulled Bit No. 11 at 5078', made 108' in 9 hours; dull. Checked B.O.P. Slipped drilling line &, serviced drill-collars. Bit No. 12 in hole at 3:00 p.m. Reamed out

WELL HISTORY "Texaco" 1-36 (Cont'd)

1952

July 27 (Cont'd) at 5329'; made 25' in 10-1/4 hours; dull. Checked B.O.P. Cut drilling line off and slipped 15'. Re-packed swivel. In hole with bit No. 13 at 7:00 p.m. Circulated and conditioned mud and drilled from 5329' to 5367'.

July 28 Drilled 10-5/8" hole from 5367' to 5601', All shale. B.O.P.E. at 5457' @ 1° 00', at 5547' @ 1° 15', at 5638' @ 1° 00', mud 68-71#. Viscosity 46-55 sec. Sand 1.5%. Water loss 6.5 c.c. Wall cake thickness 2/32". Pulled bit No. 13 at 5490' at 11:00 a.m.; total 161' in 12 hours; dull. Checked B.O.P. Serviced drill-collars. Ran bit No. 14 at 12:30 p.m. and drilled to 5601'.

July 29 Drilled 10-5/8" hole from 5601' to 5961'. From 5601' to 5764' shale. 5764' to 5770', streaks sand. 5770' to 5961', shale. B.O.P.E. at 5711' @ 1° 30'. At 5820' @ 2° 00', At 5914' @ 2° 00', mud 70#. Viscosity 45-65. Sand 1.5%. Water loss 6 c.c. Wall cake 2/32". Round trip at 5071' to change bits at 3:00 p.m. Checked B.O.P. slipped drilling line. Bit No. 14 out at 5071'; total 161' in 11-1/2 hours; bit in good condition. Bit No. 15 in at 5071' and drilled to 5961'. Drilling breaks from 5933' to 5952'; total 19' soft shale. From 5955' to 5961'; total 6' sand.

July 30 Drilled 10-5/8" hole from 5961' to 6134'. From 5961' to 6133', hard shale. From 6133' to 6134', total 11' drilling break & sand. B. O. P. E. at 6030' @ 1° 45', At 6120' @ 1° 50', mud 68-71#. Viscosity 50 sec. Sand 1%. Water loss 6.2-6.2 c.c. Wall cake 2/32". Pulled bit no. 15 at 6053' at 10:00 a.m.; total 302' in 21 hours; dull. Changed drilling lines and installed new brake bands. Ran bit No. 16 (Hughes 17-3) at 5:00 p.m. Circulated and conditioned mud, and drilled from 6053' to 6134'.

July 31 Drilled 10-5/8" hole from 6134' to 6347'. From 6134' to 6270', hard shale with streaks sand. From 6270' to 6330', hard shale with streaks sand. From 6330' to 6347', hard shale. B.O.P.E. at 6250' @ 1° 30', drilling break from 6133' to 6134', circulated mud from bottom before drilling ahead. Started drilling at 1:00 a.m. Had drilling break at 6240' to 6250'; circulated. Drilled to 6330' and pulled bit No. 16; made 277' in 10-1/2 hours; dull. Ran bit # 0.17 (Hughes 17-3). Checked B.O.P. Drilled to 6347'.

WELL HISTORY "Sousa" 1-36 (Cont'd)

1951

July 31 Mud Weight 79-80#. Viscosity 50-65. Sand content 2.3%. Water loss 4.4-8 c.c. Cake thickness 2/32". pH 7.5-8.

August 1 Drilled 10-5/8" hole from 6347' to 6530'.
From 6347' to 6375' hardshale.
From 6375' to 6465', broken sand and shale.
From 6465' to 6472', shale and shells.
From 6472' to 6510', sandy shale.
From 6510' to 6530', hard brown shale.
B.O.P.E. at 6400' @ 1° 05'. Pulled Bit No. 17 at 6510' at 4:00 p.m.; 100' in 13-1/2 hours. Checked B.O.P. and slipped drilling line. Ran Bit No. 18 (Hard 124J) and drilled to 6530'.

August 2 Drilled 10-5/8" hole from 6530' to 6730'.
From 6530' to 6570', shale and shells.
From 6570' to 6670', shale and sand.
From 6670' to 6685', sand and shale.
From 6685' to 6730', sand, shale, shells.
B.O.P.E. at 6614' @ 1° 00', at 6704' @ 1° 00'.
Mixed pill and pulled out Bit No. 18 at 2:00 a.m. at 6530', dull. Ran Bit No. 19 (Hughes 03G-3).
Circulated drilling break at 6685' to 6704'. Drilled hard shale or shell from 6704' to 6725'. Circulated drilling break from 6725' to 6730'. Pulled Bit No. 19.

August 3 Drilled 10-5/8" hole from 6730' to 6834'; sand, shale and shells. B.O.P.E. at 6793' @ 1° 10'. Mud 76-80#. Viscosity 45-50. Sand 3%. Water loss 4.8-5.0 c.c. Cake 2/32". Ran Bit No. 20 at 6730'. Had drilling break from 6766' to 6784'; circulated. Drilled to 6837' and pulled Bit No. 20; made 107' in 3-1/2 hours drilling time; dull. Serviced drill-collars. Checked B.O.P. Ran Bit No. 21 at 6837' at 8:00 p.m., and drilled to 6843'.

August 4 Drilled 10-5/8" hole from 6843' to 7126'.
From 6843' to 6966', sand, shale, and shells.
From 6966' to 6995', shale and shells.
From 6995' to 7004', sand.
From 7004' to 7025', shale with streaks sand.
From 7025' to 7126', sand, sandstone, and shale.
B.O.P.E. at 6973' @ 1° 15'. At 7043' @ 1° 00'.
Drilled to 7126' and pulled Bit No. 21; 127' in 10 hours; dull. Serviced rig and changed bits. Checked B.O.P. and slipped drilling line. Ran Bit No. 22 (03G-2 Hughes)

WELL RECORD "Souza" 1-14 (Cont'd)

1952
August 4 (Cont'd) and circulated bit clean. Circulated drilling break from 6995' to 7004'. Circulated at 7025' for samples. Same at 7060'. Drilled to 7120'; circulated and conditioned mud and hole to run Schlumberger Electrical Log. Pulled up 10 stands and ran back to bottom.

August 5 Drilled 10-5/8" hole from 7130' (corrected measurement) to 7201'; sand, shale, sandstone.
B.D.P.S. at 7125' @ 1° 00'. Mud 77-80#, Viscosity 50-60. Sand 3-5%, Water Loss 5 c.c. Wall cake 2/32".
Serviced rig; conditioned mud; measured pipe out of hole. (Corrected from 7126' to 7130').
Ran Schlumberger Electrical Log and recorded from 7127' to 370'. Ran Dip-meter.
Work completed at 1:00 p.m. Bit No. 22 made 160' in 9 hours; dull. Checked B.O.P. Cut off drilling line and serviced drill-collars. Ran Bit No. 23 (Hughes 030-3). Broke circulation at 1500' going in hole. On bottom and drilling at 5:30 p.m. Circulated drilling break at 7220' and again at 7270'.

August 6 Drilled 10-5/8" hole from 7201' to 7355'.
From 7201' to 7255', sand and shale, chalk.
From 7255' to 7314', sand and hard shale.
From 7314' to 7355', hard shale.
B.P.P.S. at 7355' @ 1° 00'. At 7333' @ 0° 45'.
Mud weight 77-78#. Viscosity 45-50'. Sand content 3.0-3.5%. Water loss 5-6 c.c. Cake 2/32". Pulled Bit No. 23 at 7:00 a.m. at 7355'; made 225' in 8-1/2 hours. Serviced rig; made up bit. Checked B.O.P. and ran Bit No. 24 (030-3 Hughes). Drilled to 7494'.

August 7 Drilled 10-5/8" hole from 7494' to 7737'. Pulled Hughes 030-3 (No. 24). Bit had drilled from 7355'-7494'. Total of 139'. Ran in hole with Hughes 030-3 Bit (No. 25) and drilled from 7494'-7673', a total of 179'. Pulled Bit No. 25. Ran in hole with Hughes 030-2 (Bit No. 26) at 7673'. B.D.P.S. at 7553' @ 0° 45'.
B.D.P.S. at 7673' @ 0° 50'.
Mud weight, 80-81#. Mud viscosity 45-50'. Mud sand content 3%. Mud water loss 5 c.c. Mud cake thickness 2/32"

Unloaded 177 joints of Used 3-1/2" drill pipe. Serviced drill collars, and checked B.O.P.

Drilling time @ 14 hours 45 minutes. Trip time 6 hours. Surveying, servicing rig, and changing bits @ 3 hours 15 minutes.

Form 103 Page Nine

WELL HISTORY "Sesnon" 1-36 (Cont'd.)

1952

August 8 Drilled 10-5/8" hole from 7737'-7875'. Pulled Bit No. 26 (Hughes 033-2). Bit No. 26 drilled from 7673-7695', a total of 112'. Ran in hole with Bit No. 27 (Hughes 033-2) at 7695'. Weight on bit 6 3/4 tons. Rotary speed 150 rpm. Pump pressure 1250 psi. Formations of shale and shells.

S.D.P.S. at 7760' @ 1° 00'.
S.D.P.S. at 7790' @ 0° 30'.
S.D.P.S. at 8030' @ 1° 00'.

Mud weight 79-80 # per cubic foot.
Mud viscosity 47-75 seconds. Sand content 3%.
Water loss 4.8-9.4 cc. Mud cake thickness 2/32".
Drilling time, 12-1/2 hours. Trip time 5 hours. Surveying, servicing rig, changing bits, slipping drilling line 2-1/2 hours.

August 9 Drilled 10-5/8" hole from 8075' to 8256'. Hughes bit 033-2 (No. 27) drilled from 7695' to 8130', a total of 351'. Pulled Bit No. 27 and ran in hole with Bit No. 28, (Hughes 033-J) at 8130'. Had pump pressure 1100 psi. Rotary speed 150 rpm. Weight on bit, 6-4 tons. Formation consisting of shale and streaks of shells and sand.

Mud weight, 79-80 # per cubic foot. Mud viscosity 60 seconds. Water Loss 5-7.4 c.c. Mud sand content, 3%. Mud cake thickness 2/32".

S.D.P.S. at 8253' @ 0° 45'.

Drilling time 8 16 hours, 15 minutes. Trip time 3 hours and 30 minutes. Surveying, servicing rig, and changing bits 4 hours and 15 minutes.

August 10 Drilled 10-5/8" hole from 8256' to 8315'. Pulled Hughes 033-J (Bit No. 28) after drilling from 8256' to 8315' a total of 59'. Circulated and rigged up to lay down 4-1/2" drill pipe in singles. Pulled 4-1/2" drill pipe and laid it down on racks, changed to 6" heads and linkes in pump. Broke and layed down on rack the 7-5/8" drill collars. Installed 3-1/2" rams in shaffer Gate.

S.D.P.S. at 8253' @ 0° 45'.

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 10 (Cont'd.)

Mud weight 79-80# per cubic foot.
Mud viscosity 50'.
Water loss 4.8cc. Mud content 3%. Mud cake thickness 2/32".

Drilling time @ 7 hours and 45 minutes. Laying down 4-1/2" drill-pipe and 7-5/8" drill-collars @ 7 hours and 30 minutes. Changing heads and liners in pumps, and installing 3-1/2" rams in Shaffer gate @ 8 hours 45 minutes.

NOTE: Hole reduced from 10-5/8" to 9-7/8" at 8315'.

August 11

Picked up drill collars; made up drill collars and bit. Ran in hole with 3-1/2" drill-pipe in singles. Broke circulation at 4000', 6000', and 8300'. Reduced hole to 9-7/8" at 8315'. Drilled from 8315' with Hughes OSC-3 (Bit No. 29). Installed new wash pipe and packing in swivel. Pressure while drilling with pump with new liners @ 1600-1700 psi. Rotary speed @ 150 rpm.
Weight on bit @ 3-5 tons.

Mud weight- 80 pounds per cubic foot.
Mud viscosity - 68-70 seconds.
Water Loss 7 cc.
Sand content 2.5-3%. Mud pH, 8.5. Mud cake thickness 2/32".

Drilling time @ 11 hours. Made up drill-collars (one 5-1/2" collar, and three 6-5/8" collars.) Ran in hole with 3-1/2" drill pipe in singles @ 13 hours.

August 12

Drilled 9-7/8" hole from 8390' to 8420'. Pulled Hughes OSC-3 (Bit No. 29) after it had drilled from 8315' to 8420'. a total of 105'. Total hours - 15-1/2. Left one cone in hole. Made up Globe Junk Basket and ran in hole to recover cone. Drilled two feet (8420'-22') with junk basket and pulled pipe. Recovered cone on first attempt. Broke down Globe Junk Basket and made up Hughes OSC-3 Bit No. 30 -. Ran in hole and drilled 9-7/8" hole from 8422'-8466'. Weight on bit in tons - 3-5.

E.D.P.S. at 8462' @ 0¢ 50'.

Mud weight - 80 pounds per cubic foot. Water loss 6.5cc. Sand content - 3%. Mud Cake thickness 2/32. pH @ 8.5

Drilling time - 11 hours. Fishing time - 7 hours. surveying, servicing, changing bits, and making up and tearing out tools @ 6 hours.

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 13

Drilled 9-7/8" hole from 8466' to 8603'. Pulled Hughes OSC-3 (Bit No. 30), after it drilled from 8420' to 8491', a total of 71'; total hours 10-1/2. Ran in hole with Hughes OSC-2 (Bit No. 31) at 8491'. Formations of shale and streaks of sand. Circulated drilling break at 8583' for sample, showing a reading on Gas Indicator of 2 units. Checked B.O.P. O.K. Drilled with stand-by pump for 7 hours while changing heads and liners in 18" Oil Well pump.
Rotary speed 150 rpm. Pump pressure 1200 psi.
Weight on bit - 2-5 tons.

Mudweight - 80#. Water loss 7.5-8 cc.
Sand content 4%. Mud Viscosity 55-75 seconds.
Cake thickness 2/32".

Drilling time 16-1/2 hours. Trip time - 4 hours.. servicing rig, changing bits and circulating drilling break @ 3 hours. Changing pumps 1/2 hour.

August 14

Drilled 9-7/8" hole from 8603' to 8747'. Pulled Bit No. 31, after it had drilled from 8491' to 8628', a total of 137'; total hours - 13. Ran in hole with Hughes OSC-2 (Bit No. 32) at 8628'. Slipped drilling line, and installed 6" heads and liners in standby pump. Installed new liner rubber seals on 18" pump. Pump pressure - 1500-1600 psi. Rotary speed - 150 rpm. Weight on bit 3-5 tons. Formations of silty shale @ drillers' log.

S.D.P.S. at 8747' @ 0° 50'.

Mud Weight 79-80#. Mud Viscosity 50 seconds. Sand content 4.5-5%. Water Loss 8 cc. Cake Thickness 2/32".

Drilling time @ 14 hours, 30 minutes. Trip time @ 6 hours, 15 minutes. Surveying, changing bits, and checking B.O.P. @ 3 hours, 15 minutes.

August 15

Drilled 9-7/8" hole from 8747' to 8858'. Pulled Hughes OSC-2 (Bit No. 33) after it had drilled from 8747' to 8839', a total of 92'; total hours @ 9-1/2. Ran in hole with Smith 2C (Bit No. 34) at 8839'. Measured out of hole on morning tour. Total depth @ 8794.72'. Conditioned mud, and loaded out 12 joints 4-1/2" drill-pipe to be repaired.
Pump pressure, 1550-1600 psi. Weight on bit - 3-5 tons. Rotary speed 150 rpm. Hard silty shale.

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 15 (Cont'd.)

Mud weight - 80-81#. Mud Viscosity 50-60 seconds. Water loss 8 cc. Sand content 4%. Cake thickness 2/32".

E.D.P.S. at 8747' @ 0° 50'. Drilling time - 14-1/2 hours. Trip time - 6-1/2 hours. Surveying, changing bits, conditioning mud, servicing rig @ 3 hours.

August 16

Drilled 9-7/8" hole from 8858' to 8920'. Pulled Smith 2-cone Bit No. 34, after it had drilled from 8839' to 8877', a total of 38'. Total hours @ 9-3/4. Ran in hole with Hughes OSC-2 (Bit No. 35) and started drilling at 8877'. Slipped drilling line, serviced drill collars, checked B.O.P., installed 3 new valves in 18" Oil Well Pump. Drilled with standby pump. Installed new liner rubber and head in 18" Oil Well Pump.
Mud Pump pressure 1600 psi. Rotary speed 150 rpm. Weight on bit - 4-5 rpm. Weight on bit 4-5 tons. Formations of hard silty shale.

E.D.P.S. at 8877' @ 1° 00'
Mud weight 80-81#. Mud Viscosity 55-60 seconds. Water Loss 8 cc. Sand content 3-4%.
Cake thickness 2/32".

Drilling time @ 14 hours, 30 minutes. Trip time 6 hours. Slip and cut off drilling line, change bits, surveying servicing rig @ 3 hours, 30 minutes.

August 17

Drilled 9-7/8" hole from 8920' to 8999'. Pulled Hughes OSC-2 (Bit No. 35) after it drilled from 8877' to 8953', a total of 76' in 16-3/4 hours. Ran in hole with Hughes OSC-2 (Bit No. 36) at 8953'. Cleaned mud suction pits, welded water jacket to brake drum. Mud pump pressure; 1250 psi. Weight on bit; 3-6 tons. Rotary speed; 150 rpm. Formations drilled consisted of hard shale.

Mud Weight - 80-81#. Mud viscosity 60 seconds. Mud sand content - 3.2%. Water loss 8.2 cc. Mud cake thickness - 2/32". pH 7.0

Drilling time - 13 hours, 15 minutes. Trip time - 4 hours, 15 minutes. Changing bits, repairing water jacket on brake, servicing rig and circulating - 6 hours, 30 minutes.

August 18

Drilled 9-7/8" hole from 8999' to 9107'. Pulled Hughes OSC-2 (Bit No. 36) after it had drilled from 8953' to 9036', a total of 83'. Total hours 14-1/2. Ran in hole with Hughes OSC-2 (Bit No. 37) at 9036'. Slipped

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 18 (Cont'd)

drilling line. Pump pressure, 1250-1300 psi. Weight on bit - 4-6 tons. Rotary speed 150 rpm. Formations drilled, hard sticky shale.

E.D.P.S. at 9036' @ 0° 45'.

Mud Weight: 81#
Mud Viscosity - 55-60 seconds.
Water loss: 9cc.
Sand content: 3%
Cake thickness: 2/32".

Drilling time - 17 hours. Circulating drilling break (9069'-9078' with no shows), 1 hour, 30 minutes. Trip time: 4 hours, 15 minutes. Surveying, changing bits servicing rig, 1 hour, 15 minutes.

August 19

Drilled 9-7/8" hole from 9107' to 9202'. Pulled Hughes OSC-2 (Bit No. 37) after it had drilled from 9036' to 9130', a total of 94'. Ran Hughes OSC-2 (Bit No. 38) at 9130'. Checked B.O.P., and cut off250' of drilling line. Treated mud and reduced water loss from 9.2 cc to 5 cc. Weight on Bit - 4-5 tons. Mud Pump pressure - 1250-1300 psi. Rotary speed: 125-150 rpm. Formations drilled consisted of hard shale with streaks of sand.

E.D.P.S. at 9130' @ 0° 45'

Mud weight - 80-81#
Mud viscosity - 55-60 seconds.
Water loss: 5 cc.
Sand content - 3.5%
Cake thickness - 2/32", pH: 8.5 to 9.0.

Drilling time ,15 hours, 15 minutes. Trip time - 4 hours, 45 minutes. Surveying, servicing rig, conditioning mud, changing bits - 4 hours.

August 20

Drilled 9-7/8" hole fro, 9202' to 9276'. Pulled Hughes OSC-2 Bit No. 38, after it had drilled from 9130' to 9202', a total of 72'. Ran in hole with Hughes OSC-3 (Bit No. 39) at 9202'. Checked B.O.P., re-spooled drilling line. Weight on Bit - 2-4 tons. Mud pump pressure. 1250-1300 psi. Rotary speed; 125-150 rpm.

Eastman Drill Pipe Survey at 9202' @ 0° 45'

Mud Weight 81#
Mud viscosity - 45-50 seconds
Sand content 3%
Water loss 5 cc.
Cake thickness 2/32"

WELL HISTORY "Souza" 1-36 (Continued)

1951

August 20 (Cont'd)

Drilling time: 12 hours, 30 minutes. Trip time, 6 hours, 30 minutes. Surveying, servicing rig, changing bits and circulating, 5 hours.

August 21

Drilled 9-7/8" hole from 9276' to 9340'. Pulled Hughes OSC-3 (Bit No. 39) after it drilled from 9202' to 9242', a total of 40' in 10 hours. Ran in hole with Hughes OSC-2 (Bit No. 40) at 9242'. Pulled Hughes OSC-2 (Bit No. 40) after it drilled from 9242' to 9307', a total of 65', in total 10 hours. Ran in hole with Hughes OSC-2 (Bit No. 41) at 9307'. Drill collars parted while hanging from elevators, fell through bit dock and buried 3 feet in the ground. Opposite end was caught by A frame of derrick. No one hurt, no damage to rig. Retrieved collar from A frame, and loaded out broken collars to be repaired. Weight on Bit - 4-5 tons. Mud pump pressure 1250-1300 psi. Rotary speed, 125-150 rpm.

E.D.P.S. at 9307' @ 1° 00'.

Mud weight: 81#
Mud viscosity - 49-50 seconds.
Water loss. 5 c.c.
Sand content 3%
Cake thickness 2/32"

Drilling time: 11 hours, 15 minutes. Trip time - 4 hours, 15 minutes. Loading out and retrieving broken drill collars - 3 hours. Surveying, changing bits, slipping drilling line - 5 hours, 30 minutes.

Formation drilled consisted of hard brown shale; with streaks of very hard, lime-cemented sandstone.

August 22

Drilled 9-7/8" hole from 9340' to 9403'. Pulled Hughes OSC-2(Bit No. 41) after it drilled from 9307' to 9372', a total of 65' in 9-1/4 hours. Ran in hole with Hughes OSC-2 (Bit No. 42) at 9372'. Adjusted brake on draw works, slipped drilling line. Mud pump pressure - 1250- 1300 psi. Weight on bit, 2-4 tons. Rotary speed, 125-150 rpm.

E.D.P.S. at 9372' @ 0° 55'.

Mud weight, 81#
Mud viscosity, 47-50 seconds
Water loss: 5.2 cc-5.6 cc.
Sand content 2-2.5%
Cake thickness: 2/32"

Formations drilled consisted of shale with streaks of sand and shale.

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 23

Drilled 9-7/8" hole from 9422' to 9552'. Pulled Hughes OSC-2 (Bit No. 42) after it drilled from 9372' to 9422', a total of 50'. Ran in hole with Hughes OSC-1 (Bit No. 43) at 9422' and drilled to 9552'. Pulled Hughes OSC-1 (Bit No. 43) after it drilled from 9422' to 9552', a total of 130 feet in 13-3/4 hours. Weight on bit, 3-6 tons. Mud Pump pressure, 1250-1300 psi. Rotary speed, 125-150 rpm.

Mud weight, 80-81#.
Mud Viscosity, 44-50 seconds.
Sand content, 3%
Water loss, 5.4-5.6 cc.
Cake thickness, 2/32"

Circulated the following drilling breaks, 9465'-9470', 9493'-9505', and at 9517'. These breaks had only slight traces of gas, as indicated by gas indicator operated by Peters Well Logging Service.

Drilling time: 13 hours, 45 minutes. Trip time, 4 hours. Circulating drilling breaks, changing bits, servicing rig 6 hours, 15 minutes.

August 24

Drilled 9-7/8" hole from 9552' to 9578'. Measured out of hole (OK) when pulling Hughes OSC-1 (Bit No. 44) after it drilled from 9552' to 9578', a total of 26'. Ran in hole with Dunlap Wire-line Core Barrel with 7-5/8" Hughes Rock Head (Bit No. 44-1) and cored from 9583' to 9611', a total of 28'. (See Core Record and Description). Weight on bit 2-4 tons. Mud Pump pressure, 900-1200 psi. Rotary speed, 75-150 rpm.

Mud weight, 81-82#
Mud Viscosity, 60-65 seconds.
Sand content, 3%
Water loss, 5.4-5.7 cc.
Cake thickness, 2/32"

Drilling time, 3-1/2 hours. Coring time, 5-1/2 hours. Making up coring tools, measuring out of hole, circulating mud, working on pump, pulling cores, 15 hours.

August 25

Cored 7-5/8" hole from 9611' to 9651'. Pulled Dunlap Core Barrel (Bit No. 44-1) after coring from 9578' to 9611', a total of 33' in 6 hours. Ran in hole with Dunlap Rbl. (Bit No. 44-2) and cored from 9611' to 9651', a total of 40' in 9-1/2 hours. Pulled Dunlap Rbl. (Bit No. 44-2) and ran in hole with Dunlap Rbl. (Bit No. 44-3) at 9651'. Mud pump pressure, 850-900 psi. Weight on bit, 3-4 tons. Rotary speed, 50-75 rpm.

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 25 (Cont'd)

Mud Weight, 81-82#
Mud Viscosity, 55-60 seconds
Sand content: 3%
Water loss, 6.6-6.8 cc.
Cake thickness: 2/32"

Coring time, 9-1/2 hours. Trip time, 5-1/2 hours, Pulling cores, changing bits, servicing rig, 9 hours.

August 26

Cored 7-5/8" hole from 9651' to 9716'. Pulled Dunlap Wire-line Core Bbl. (Bit No. H-3) after it cored from 9651' to 9713', a total of 65' in 9-3/4 hours. Circulated and conditioned mud prior to running Electrical log. Mud Pump pressure, 850-900 psi. Weight on bit, 3-5 tons. Rotary speed, 55-60 rpm.

Mud weight, 80-81#
Mud Viscosity, 49-50 seconds
Water loss, 6.8-7 cc.
Sand content 3-4%
Cake thickness: 2/32

Coring time, 9-3/4 hours. Pulling cores, 8 hours. Pulling pipe, 2 hours. Servicing rig, conditioning mud for electrical log, 4-1/4 hours.

August 27

Circulated and measured out of hole for Schlumberger. Corrected measurement @ 9713'. Ran Schlumberger Electrical log and recorded from 9712' to 7127' Depth reached by Schlumberger @ 9713', checking drillers measurements above. Ran in hole with Hughes OSC (Bit No. H5) and drilled 7-5/8" hole 9713'-9798', Weight on bit, 4 tons. Mud Pump Pressure, 1200 psi. Rotary speed, 150 rpm.

Mud Weight, 81#
Mud Viscosity 50 seconds
Sand content, 1.5-2%
Water loss, 7.4 cc.
Cake Thickness, 2/32"

Drilling time, 5 hours, 30 minutes. Conditioning mud for Schlumberger, 7 hours, 30 minutes. Running Schlumberger 3 hours, 15 minutes. Trip time, 5 hours. Circulating drilling break at 9798' for logging service, 2 hours, 45 minutes.

WELL HISTORY "Souza" 1-36 (Continued)

1951

August 28

Drilled 7-5/8" hole from 9798' to 9921'. Pulled Hughes OSC (Bit #45) after it drilled from 9713' to 9819', a total of 106 feet in 9 hours. Ran in hole with Hughes OSC (Bit #46) at 9819'. Circulated drilling breaks for logging service at 9872' and 9885'. No shows recorded from samples. 18" Oil Well Pump broken down; drilling with 14" standby pump. Weight on bit, 3-4 tons. Mud Pump pressure: 1000-1250 psi. Rotary speed, 125-150 rpm.

Mud weight, 81#
Mud Viscosity: 47-55 Seconds
Sand content, 1.5-2%
Water Loss: 7.4-7.6 cc.
Cake thickness: 2/32"

Drilling time, 11-1/2 hours. Trip time 4-1/2 hours. Circulating drilling breaks for logging service, 6 hours. Changing bits, servicing rig, loading out 4-1/2" drill pipe - 2 hours.

August 29

Drilled 7-5/8" hole from 9921' to 10,007'. Pulled Hughes OSC (Bit No. 46) after it drilled from 9819' to 9977', a total of 158' in 12 hours. Ran in hole with Hughes OSC (Bit No. 47), and drilled from 9977' to 10,007'. Pulled Hughes OSC (Bit No. 47) after it drilled 30 feet in 2-1/2 hours. Ran in hole with Dunlap Wire-line Core Bbl. with Hughes 7-5/8" rock head at 10,007'. Circulated and conditioned mud. Building up mud weight. Mud Pump pressure: 1000-1250 psi. Weight on bit, 2-5 tons. Rotary speed, 120-150 rpm.

Mud Weight 0 after being conditioned: 85#.
Mud Viscosity: 45-50 seconds
Sand content: 2%
Water loss: 7 cc.
Mud cake thickness: 2/32"

Drilling time - 6 hours, 30 minutes. Trip time: 7 hours. Circulating mud to build up weight, 6-1/2 hours. Working on water pump which was sanded up: 2 hours. Making up tools for coring, servicing rig: 2 hours.

August 30

Cored and drilled 7-5/8" hole from 10,007' to 10,084'. Pulled Dunlap Core Bbl. (Bit No. 47-A) after coring from 10,007 to 10,037', a total of 30 feet in 6 hours. Ran in hole with Hughes OSC (Bit No. 48) at 10,037', and drilled 7-5/8" hole to 10,084'. Slipped drilling line,

WELL HISTORY "Souza" 1-36 (Continued)

1951
August 30 (Cont'd)

and checked blow-out Preventer (O.K.). Weight on bit: 3-5 tons. Mud pump pressure: 800-1250 psi. Rotary Speed: 125 rpm.

Mud Weight: 84-85#
Mud Viscosity: 45-48 seconds.
Mud sand content: 2%
Water loss: 5.2cc.
Cake thickness: 2/32".

Drilling time 10-1/2 hours. Pulling cores: 4 hours. Circulated drilling break @ 10,067'-10,079' for logging Service: 2 hours. Trip time: 4-1/2 hours. Making up tools, and servicing rig: 3 hours.

August 31

Drilled 7-5/8" hole from 10,084' to 10,180'. Pulled Hughes OSC (Bit No. 48) after it drilled from 10,037' to 10,153', a total of 116 feet in 12-1/2 hours. Ran in hole with Hughes OSC-2 (Bit No. 49) at 10,153'. Rotary chains were worn and broken and had to be replaced. Checked Blow-Out Preventer - O.K. Serviced drill-collars. Mud Pump Pressure: 1,000-1250 psi. Weight on bit: 3-5 tons. Rotary speed: 125-150 rpm.

E.M.P.S. at 10,153' @ 2° 00'.

Mud Weight: 86-87#
Mud Viscosity: 45-50 seconds.
Water Loss: 15 minute test @ 4.6 to 5.6 cc.
" " 30 minute test @ 6.8 to 8.4 cc.
Sand content: 1 to 2%
Cake thickness: 2/32"
pH: 7.0

Drilling Time: 10-3/4 hours. Circulating for Peters Logging Service: 1-3/4 hours. Trip time: 5 hours. Repairing rotary chains: 3 hours. Changing bits, surveying, servicing rig, slipping drilling line: 3-1/2 hours.

September 1

Drilled 7-5/8" hole from 10,180' to 10,321'. Pulled Hughes OSC-2 (Bit No. 49) after it drilled from 10,153' to 10,281', a total of 128 feet in 13-1/2 hours. Ran in hole with Hughes OSC-2 (Bit No. 50) at 10,281'. Slipped drilling line, installed new drive chain.

Weight on bit: 3-5 tons
Rotary Speed: 125-150 rpm.
Mud pump pressure: 1100-1200 psi.

Mud Weight: 86-88#
Mud Viscosity: 50-60 seconds

WELL HISTORY "Sousa" 1-36 (Continued)

1951
September 1 (Cont'd)

Mud sand content: 2%
Water loss: 8.2-9 cc.
Cake thickness: 2/32"
pH: minimum @ 7.0 - Maximum @ 8.5

Drilling time: 15-1/2 hours. Trip time: 3-1/2 hours. Changing bits, Servicing rig, and slipping drilling line: 5 hours.

September 2

Drilled 7-5/8" hole from 10,321' to 10,438'. Pulled Hughes OSC-2 (Bit No. 50) after it drilled from 10,281' to 10,384', a total of 103 feet in 12 hours. Ran in hole with Hughes OSC-2 (Bit No. 51) at 10,384'. Serviced drill collars and slipped drilling line.

E.D.P.S. at 10,384' @ 1° 45'

Weight on bit: 3-6 tons.
Mud pump pressure: 1,000-1100 psi.
Rotary Speed: 135-150 rpm.

Mud Weight: 87#
Mud viscosity: 60-70 seconds.
Mud sand content: 2-3%
Mud water loss: 7 cc.
Cake thickness: 2/32"
pH: minimum @ 7.0 - Maximum @ 7.5

Drilling time 16-1/2 hours. Trip time: 5 hours. Surveying, Servicing rig, and servicing drill collars: 3-1/2 hours.

September 3

Drilled 7-5/8" hole from 10,438' to 10,538'. Pulled Hughes OSC-2 (Bit No. 51) after it drilled from 10,384' to 10,450', a total of 66 feet in 13 hours. Ran in hole with Hughes OSC-2 (Bit No. 52) at 10,450'. Pulled Hughes OSC-2 (Bit No. 52) after it drilled from 10,450' to 10,538', a total of 88' in 9-1/2 hours. Serviced drill collars.

Mud pump pressure: 1200 psi.
Weight on bit: 3-6 tons
Rotary speed: 135-150 rpm.

Mud weight: 87-89#
Mud Viscosity: 50-55 seconds
Mud Sand content: 2%
Water loss: 7 cc.
Cake thickness: 2/32"

Drilling time: 12-1/2 hours. Trip time: 7 hours. Changing bits, and miscellaneous repairs to rig: 4-1/2 hours.

WELL HISTORY "Souza" 1-36 (Continued)

1951
September 4

Drilled 7-5/8" hole from 10,536' to 10,634' (Total depth by driller) pulled Hughes OSC-2 (Bit No. 53) after it drilled for 9-3/4 hours, making a total of 96 feet. Conditioned mud for Schlumberger Electrical Log. Circulated off bottom for 2 hours; then pulled up to top of rat hole at 9578' and turned mud over.

Weight on bit: 3-5 tons
Rotary speed: 125-150 rpm.
Mud pump pressure: 1100 psi.

Mud Weight: 87-88#
Mud viscosity: 53 seconds
Sand content: 3%
Water loss: 7.4-8.3 cc.
Cake thickness: 2/32"

Drilling time: 9-3/4 hours. Trip time: 5-3/4 hours. Circulating and conditioning mud for Electrical Log: 6-1/2 hours. Checking B.O.P. and servicing rig: 2 hours.

September 5

Ran 3rd. run Schlumberger Electrical Log and recorded from 10,634' to 9,712'. TOTAL DEPTH of well by Schlumberger @ 10,635' as compared with drillers' measured depth of 10,634.31'. (Changed from 4-1/2" to 3-1/2" drill pipe at 6315').

Called Division of Oil & Gas in Coalinga at 9:00 a.m. and discussed Abandonment Procedure.

With open-end 3-1/2" drill-pipe hanging at 1200 feet, mixed and pumped in 40 sax Type-C Permanente Construction Cement treated with 1/2 sack Flocele. Displaced cement with 48 cu. ft. drilling fluid. Let set 6 hours and found top of firm cement plug at 1146'. This plug bridges across the fresh-water brackish-water interface which occurs at 1166'.

Hung open-end 3-1/2" drill-pipe at 396'. Mixed and pumped in 40 sax Permanente Type-C Construction Cement treated with 1/2 sack Flocele. Displaced cement with 16 cu. ft drilling fluid. After 5-1/2 hours found top of set cement at 350'. This lug bridges from 20' below to 26' above the shoe of the 14" surface casing; which was cemented to a depth of 376', drillers measurements.

Above cementing done with Halliburton Power Equipment and bulk cement.

WELL HISTORY "Souza" 1-36 (Continued)

1951
September 5
(Cont'd).

Cut 14" surface casing at cellar depth and placed a 10 foot cement plug in top of same.

Location and hardness of above plugs witnessed by Engineer of Operator.

Unplugged portions of hole were left full of heavy mud.

Well ABANDONED in above condition September 5, 1951.

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. M. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOUZA" 1-36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

SPUD: 7-13-51) **FORMATIONS PENETRATED BY WELL** (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
0	75'	75'	Drilled		Soil, sand, gravel, clays; conglomerate wash.
75'	115'	40'	"		Pea gravel.
115'	150'	35'	"		Sand and gravel.
150'	225'	75'	"		Hard sand.
225'	376'	151'	"		Shale, streaks sand and gravel.
376'	598'	222'	"		Shale.
598'	657'	59'	"		Shale.
657'	666'	9'	"		Shale.
666'	1298'	632'	"		Shale with streaks sand.
1298'	1541'	243'	"		Shale with streaks sandy shale.
1541'	1682'	141'	"		Shale with streaks sand.
1682'	1987'	305'	"		Shale.
1987'	2254'	367'	"		Sandy shale and shale shells.
2254'	2535'	281'	"		Blue shale and coarse sand.
2535'	2585'	50'	"		Shale with streaks of sand and hard shale.
2585'	2631'	46	"		Sand with streaks of shale.
2631'	2659'	28	"		Blue shale with streaks of sand.
2659'	2872'	213'	"		Shale and shells.
2872'	2950'	78'	"		Shale (soft)
2950'	3201'	251'	"		Hard brown shale.
3201'	3381'	180'	"		Shale.
3381'	3528'	147'	"		Shale.
3528'	3616'	88'	"		Hard brown shale
3616'	3779'	163'	"		Shale.
3779'	3893'	114'	"		Shale and shells.
3893'	3985'	92'	"		Hard brown shale, streaks sand.
3985'	4210'	225'	"		Shale with streaks sand.
4210'	4220'	10'	"		Sandy shale.
4220'	4291'	71'	"		Slick shale.
4291'	4382'	91'	"		Shale, streaks sand.
4382'	4418'	36'	"		Shale with streaks of sand.
4418'	4503'	85'	"		Shale with streaks of sand.
4503'	4542'	39'	"		Silty shale.
4542'	4657'	115'	"		Shale and shells!
4657'	4715'	58'	"		Shale.
4715'	4850'	135'	"		Shale.
4850'	4909'	59'	"		Shale.
4909'	5078'	169'	"		Sandy shale.
5078'	5215'	137'	"		Shale.
5215'	5329'	114'	"		Shale and sand shells.
5329'	5369'	40'	"		Shale, streaks sand.
5369'	5486'	117'	"		Shale.

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. H. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOUZA" 1-36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

FORMATIONS PENETRATED BY WELL (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
5486'	5547'	61'	Drilled		Shale.
5547'	5661'	114'	"		Shale.
5661'	5731'	70'	"		Shale.
5731'	5764'	33'	"		Shale.
5764'	5770'	6'	"		Drilling Break. Circulated for meters Logging Wagon sample. Washed material recovered consisted of trace of gray shale; dark brown shale estimated 95%.
5770'	5856'	86'	"		Shale.
5856'	5933'	77'	"		Shale.
5933'	5952'	19'	"		Drilling Break. Circulated as above. Recovered gray silty shale 60%; dark brown shale 20%; sand 20%.
5952'	5955'	3'	"		Shale.
5955'	5961'	6'	"		Drilling Break. Circulated as above. Recovered gray silty shale 60%. dark brown shale 20%; sand 20%.
5961'	6002'	41'	"		Shale.
	6002'		"		Drilling break at 6002'. Circulated as above. Recovered gray silty shale 50%; dark brown shale 25%; sand content 25%.
6002'	6053'	51'	"		Shale.
6053'	6133'	80'	"		Shale.
6133'	6144'	11'	"		Drilling Break. Circulated as above. Recovered fine to medium clayey sand 90%; dark brown shale 10%.
6144'	6240'	96'	"		Hard shale, streaks of sand.
6240'	6250'	10'	"		Drilling Break. Circulated out as above. Recovered clayey sand 80%; dash brown shale 20%.
6250'	6270'	20'	"		Hard shale, streaks of sand.
6270'	6330'	60'	"		Hard shale, streaks of sand.
6330'	6347'	17'	"		Shale.
6347'	6375'	28'	"		Shale.
6375'	6465'	90'	"		Broken sand and shale.
6465'	6472'	7'	"		Shale shell.

-4

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. M. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOUZA" 1-36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

FORMATIONS PENETRATED BY WELL (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
6472'	6478'	6'	Drilled		Broken shale.
6478'	6510'	32'	"		Sandy shale.
6510'	6530'	20'	"		Hard brown shale.
6530'	6570'	40'	"		Shale and shells.
6570'	6679'	109'	"		Shale and sand.
6679'	6685'	6'	"		Sand and shale.
6685'	6704'	19'	"		Drilling Break. Circulated for Peters Logging Wagon sample. Recovered dark brown shale 20%; gray shale 20%; sand content 60%.
6704'	6720'	16'	"		Shell.
6720'	6725'	5'	"		Hard shale.
6725'	6730'	5'	"		Drilling Break. Circulated out for sample as above. Recovered trace of sand; trace of brown shale; gray shale 95%.
	6730'		"		Drilling shell at 6730'.
6730'	6746'	16'	"		Sand, shale, and shells.
6746'	6754'	8'	"		Drilling Break. Circulated for samples as above. Recovered trace of sand; trace of brown shale; gray shale 95%.
6754'	6767'	13'	"		Sand, shale, and shells.
6767'	6780'	13'	"		Drilling Break. Circulated as above. Washed material recovered consisted of gray shale 95%; trace of brown shale; trace of sand.
6780'	6839'	59'	"		Sand and shells.
6839'	6894'	55'	"		Shale.
6894'	6966'	72'	"		Sand, shells, and shells.
6966'	6995'	29'	"		Shale and shells.
6995'	7004'	9'	"		Drilling Break. Circulated as above. Recovered fine clayey quartz sand 95%; trace dark brown shale.
7004'	7025'	21'	"		Shale with streaks of sand. Circulated at 7025' for Peters Logging Wagon sample. Recovered (washed material) trace dark brown shale; fine clayey sand 95%.
7025'	7130'	105'	"		Sand, sandstone, and shale. Corculated as above at 7025'. Recovered dark brown shale 60%; clayey sand 40%.

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. M. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOUZA" 1 36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

FORMATIONS PENETRATED BY WELL (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
					Circulated at 7060'. Recovered dark brown shale 70%; clayey sand 30%.
					Circulated at 7094'. Recovered dark brown shale 30%, clayey sand 70%.
					Circulated at 7130'. Recovered dark brown shale 90%; gray clay shale 10%; trace of sand.
7130'	7220'	90'	Drilled		Sand, shale, and sandstones. Circulated at 7220'. Recovered trace dark brown shale; gray clay shale 20%; sand content 80%.
7220'	7270'	50'	"		Sand, shale and sandstones. Circulated at 7270'. Recovered dark brown shale 10%; gray clay shale 90%; trace of sand.
7270'	7281'	11'	"		Sand, shale, and sandstones.
7281'	7355'	74'	"		Sand, and shale shells.
7355'	7414'	59'	"		Sand and hard shale.
7414'	7494'	80'	"		Hard shale.
7494'	7534'	40'	"		Shale and shells.
7534'	7600'	66'	"		Shale and shells.
7600'	7616'	16'	"		Sand and shells.
7616'	7737'	121'	"		Sand and shells.
7737'	7829'	92'	"		Sand and shells. Circulated out at 7829'. Recovered gray clay shale 30%; dark brown shale 20%; medium to fine sand 50%.
7829'	7863'	34'	"		Sand and shells.
7863'	7918'	55'	"		Sand and shells.
7918'	8074'	156'	"		Sand and shells.
8074'	8135'	61'	"		Sand and shells.
8135'	8142'	7'	"		Shale.
8142'	8182'	40'	"		Shale, streaks sand.
8182'	8256'	74'	"		Shale.
8256'	8260'	4'	"		Shale with streaks sand.
8260'	8315'	55'	"		Hard sand, streaks shale. Circulated out at 8315'. Recovered trace gray clay shale; trace of sand; dark brown shale 95%.
8315'	8342'	27'	"		Hard sand with streaks shale.
8342'	8390'	48'	"		Shale.
8390'	8420'	30'	"		Shale.
8402'	8422'	2'	CORE NO.A		Cored 2' of hole (8420'-22') with Globe Junk Basket in recovering rock bit

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. M. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOUZA" 1-36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

FORMATIONS PENETRATED BY WELL (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
8420'	8422'	2'	CORE A	(Cont'd)	cone. (See core description).
8422'	8466'	44'	Drilled		Shale.
8466'	8491'	25'	"		Sandy shale.
8491'	8565'	74'	"		Silty shale.
8565'	8583'	18'	"		Shale.
8583'	8598'	15'	"		Drilling Break. Circulated out cuttings. from this interval for Peters Formation to ging Wagon. Recovered (washed material) trace of gray clay shale; trace sand; dark brown shale 95%.
8598'	8604'	6'	"		Sand and silty shale.
8604'	8706'	102'	"		Silty shale.
8706'	8747'	41'	"		Silty shale.
8747'	8794'	47'	"		Silty shale.
8794'	8839'	45'	"		Silty shale.
8839'	8858'	19'	"		Hard gray shale.
8858'	8877'	19'	"		Hard silty shale.
8877'	8920'	43'	"		Shale.
8920'	8953'	33'	"		Hard shale.
8953'	8999'	46'	"		Shale.
8999'	9036'	37'	"		Shale.
9036'	9059'	23'	"		Shale and thin streaks sand.
9059'	9069'	10'	"		Shale
9069'	9078'	9'	"		Drilling Breaks. Circulated out bit. Cuttings as above. Recovered dark brown silty shale 80%; trace of gray silty claystone; sand content 20%.
9078'	9100'	22'	"		Sticky shale, streaks sand.
9100'	9107'	7'	"		Hard shale.
9107'	9130'	23'	"		Shale with streaks of sand.
9130'	9150'	20'	"		Sticky shale.
9150'	9202'	52'	"		Shale.
9202'	9219'	17'	"		Shale.
9219'	9276'	57'	"		Shale.
9276'	9307'	31'	"		Shale.
9307'	9340'	33'	"		Shale.
9340'	9347'	7'	"		Sand and shale shells. Circulated at 9347' for bottom hole sample of cuttings. Recovered dark brown silty shale 30%,

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. M. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOUZA" 1-36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

FORMATIONS PENETRATED BY WELL (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
9340'	9347'	7'	Drilled	(Continued)	Gray silty clay 40%; fine to coarse sand 30%.
9347'	9403'	56'	"		Sand and shale shells.
9403'	9422'	19'	"		Sand and shale shells.
9422'	9455'	33'	"		Silty shale.
9455'	9465'	10'	"		Shale.
9465'	9470'	5'	"		Drilling Break at 9465'. Circulated out cuttings from 9470' for Peters formation Logging Wagon. Washed material recovered consisted of dark brown silty shale 40%; gray silty clay 30%; sand content 30%.
9470'	9490'	20'	"		Sandy shale, hard and soft streaks.
9490'	9496'	6'	"		Hard shale.
9496'	9505'	9'	"		Sandy shale, hard and soft streaks.
9505'	9506'	1'	"		Hard (shale).
9506'	9520'	14'	"		Silty shale.
9520'	9552'	32'	"		Silty shale.
9552'	9578'	26'	"		Broken sand and shale.
9578'	9716'	138'	CORES No. 1 to No. 16 inclusive	99.7' (72.2% Recovery)	9578'-9716' Cored with Dunlap (Hunt) Wire-Line Core Barrel equipped with Hughes 7-5/8" Rock Head. This is first cored interval of well. Core No. 1 taken from 9578'-9583'. (See CORE RECORD for detailed CORE DESCRIPTION).
9716'	9798'	82'	Drilled		Shale with streaks of sand
9798'	9805'	7'	"		Sand.
9805'	9819'	14'	"		Shell.
9819'	9836'	17'	"		Shale and sand.
9836'	9872'	36'	"		Sand and shale.
9872'	9885'	13'	"		Sand and shale.
9885'	9921'	36'	"		Sand and shale.
9921'	9977'	56'	"		Shale, streaks sand.
9977'	10007'	30'	"		Shale, streaks sand.
10007'	10037'	30'	CORES No. 17 to No. 19 inclusive	18.8' (62.7% Recovery	10007'-10037'. Cored with Dunlap Wire-Line Core Barrel with Hughes 7-5/8" Rock Head. This is second and last cored interval of well. (See CORE RECORD for detailed CORE DESCRIPTION)
10037'	10079'	42'	Drilled		Broken sand and shale.

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator L. M. LOCKHART Field PANOCHE CREEK AREA, FRESNO COUNTY

Well No. "SOTA" 1-36 Sec. 36, T. 14S, R. 12E, M. D. B. & M.

(Completed Drilling 9-1-57)

FORMATIONS PENETRATED BY WELL (DRILLERS' LOG)

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
10079'	10084'	5'	Drilled		Broken sand and shale.
10084'	10139'	55'	"		Sand and shale.
10139'	10180'	41'	"		Broken sand and shale.
10180'	10265'	85'	"		Sand and shale.
10265'	10281'	16'	"		Sand and shale.
10281'	10321'	40'	"		Broken sand and shale.
10321'	10384'	63'	"		Sand, streaks shale.
10384'	10401'	17'	"		Shale with streaks sand.
10401'	10402'	1'	"		Sand.
10402'	10438'	36'	"		Shale.
10438'	10450'	12'	"		Shale.
10450'	10491'	41'	"		Shale.
10491'	10538'	47'	"		Shale.
10538'	10553'	15'	"		Shale, streaks sand.
10553'	10627'	74'	"		Sand and shale
10627'	10634'	7'	"		Silty shale.
	10634'	TOTAL DEPTH @ Drillers' Measurements.			
	10635'	TOTAL DEPTH @ Schlumberger Electrical Log.			

Form 101 Page One

DIVISION OF OIL AND GAS

Operator: L. M. Lockhart Location: Panoche Creek Area, Fresno County

Well: "Souza" 1-36 Sec. 36 - T14S - R12E - MDB&M

Elevation: 431.7' KB

CORE RECOVED

Date 1951'	No.	From	To	Thickness	Recovery	Type Bbl.		Core Description
8-12	A	8420'	8422'	2'	0.8'	Globe Junk Basket	0.8'	Siltstone: dark gray, very hard, contains small irregular calcite streaks throughout, finely sandy. Contains abundant inoceramus prisms, and scattered small micro fauna.
8-24	1.	9578'	9583'	5'	1.5'	Dunlap Wire-line 7-5/8" Rock Head	1.5'	andstone: light gray, fine, hard, well consolidated, and indurated in places; ashy and silty matrix; a very tight rock. Contains abundant jet black ferro- magnesium mineral grains and flakes giving a salt and pepper texture in places. Very fine silt and dark claystone laminae in middle show a fair average dip of 11°. No cut, no stain, no odor.
8-24	2.	9583'	9593'	10'	1.1	"	1.1'	Sandstone: light gray with abundant black grains as above, fine, solid, massive, hard, indurated, very tight rock, silty and ashy matrix. No cut, no stain, no odor.
8-24	3.	9593'	9601'	8'	2.4'	"	1.2'	Sandstone as above. Fine dark clayey laminations at contact with claystone below show regular flat dips from 2° to 4°. No cut, no stain, no odor.
							1.2'	Claystone: dark blackish-gray, look organic, hard, massive, solid, cleavage planes at 9°. Contains small forams and fish scales. Irregular small fine gray sand laminae cross-bedded in bottom 2".
8-24	4.	9601'	9611'	10'	7.0'	"	7.0'	Claystone; dark, blackish-gray, massive, solid, hard, very clayey, organic; scattered forams, inoceramus prisms, and fish scales observed Contains small fine, tight gray

L. M. Lockhart "Souza" 1-36

Core Record (Cont'd)

Date 1951	No.	From	To.	Thickness	Recovery	Type Bbl.		Core Description
8-24	4.	9611'	9611'	10'	7.0'	Dunlap Wire-line 7-5/8" Rock Head	7.0'	sand patches and very thin laminae; also fine sand and claystone cross-bedding with irregular and wavy dips in all directions from flat to 15°.
	(Continued)							
8-25	5.	9611'	9618'	7'	8.5'	"	3.0'	(1.5' Pickup) Claystone: dark blackish-gray, organic, definitely clayey with little fine sand or silt, hard, solid, massive; scattered small forams, Inoceramus prisms, and fish scales; very fine gray sand laminae show irregular dips of 4° to 6°.
							2.5'	Sandstone: light gray with abundant ferro-magnesium specks, hard, consolidated, very tight with silty and ashy matrix, fine-grained, no cut, no stain, no odor. Fine shale laminae and shale streaks to ⅛" at bottom show irregular and cross-bedded dips 2° to 10°.
							2.0'	Claystone as above with fine sand laminae and streaks showing irregular dips averaging 12°.
							0.7'	Sandstone as above, no stain, no cut, no odor.
							0.3'	Claystone as above, solid, massive, organic.
8-25	6.	9618'	9623'	5'	5.7'	"	1.7'	(0.7' Pickup) Claystone: dark blackish-gray, organic appearing, hard, solid, generally massive but with many fine gray sand laminae toward bottom, Inoceramus prisms and small "bugs" observed; sand laminae cleavage planes, and fractures show dips from 3° to 10°.
							1.8'	Gray sand: dirty light gray with abundant small black ferro-magnesium grains; fine, hard, silty, tight, well consolidated, no cut, no stain, no odor. Good 10° dip in sharp sand clay-stone contact at bottom.
							1.8'	Claystone as above: solid, organic.
							0.4'	Gray sand as above: hard, consolidated, silty, ashy, tight. Seems to be dry and tight with little fluid. No cut, no stain, no odor.

L. K. Lockhart "Souza" 1-36

Core Record (Cont'd)

Date 1951	No.	From	To	Thick-ness	Recov-ery	Type Bbl.		Core Description
8-25	7.	9623'	9631'	8'	6.0'	Dunlap Wire-line 7-5/8" Rock Head	3.0'	Claystone: as above, a few gas "pock marks" broke out through mud sheath at 1.5'.
							0.5'	Gray sand; fine, hard, well consolidated silty and dirty in places, very tight rock. At bottom cross-bedded with dark silt and claystone streaks and patches. No cut, no stain, no odor.
							2.5'	Claystone as above: dark gray, organic, massive, no dips observed.
8-25	8.	9631'	9641'	10'	10.0'	"	3.4'	Claystone: dark gray, hard, solid, contains a little fine sand and silt, looks organic, scattered micro-fauna; thin and mostly irregular very fine gray sand laminae and partings scattered throughout; average of fair dips near bottom @ 12°; good clean dip at sharp sandstone contact at bottom @ 6°.
							2.3'	Sandstone or very well consolidated sand: dirty light gray with abund-and black ferro-magnesium minerals in grains, specks, platey forms, and rounded inclusions; hard, fine, silty and ashy matrix; tight rock with little of any permeability; "Dry" appearing when broken open; massive with a few irregular silt-stone partings, no cut, no stain, no odor.
							4.3'	Claystone as above: floods of Inoceramus prisms (?) and scattered forams observed; good clean and sharp fine gray sand laminations show good average dip of 8° at 2.3', and good cleavage planes (Planes of fissility) show good dips of 6° to 7° throughout.
8-25	9.	9641'	9651'	10'	9.0'	"	3.0'	Sandstone as above: hard, well consolidated, tight rock, irregular claystone partings at top, no cut, no stain, no odor.
							0.4'	Claystone as above, finely sandy with fine gray sand partings throughout

L. M. Lockhart "Souza" 1-36

Core Record (Cont'd)

Date 1951	No.	From	To	Thickness	Recovery	Type Tbl.		Core Description
8-25	9.	9641'	9651'	10'	9.0'	Dunlap Wire-line 7-5/8" Rock head	1.0'	Sandstone as above, very tight rock.
		(Continued)					4.6'	Siltstone: quite clayey but a siltstone finely sandy in places; dark blackish-gray, hard appears quite organic, generally solid material; contains plentiful thin fine gray sand partings, irregular laminae, cross-bedded streaks, and inclusions throughout. Average of the better dips at the fine sand partings is from 8° to 11°. Common Inoceramus prisms observed, and scattered small micro-fauna. Bottom 2" is a hard, dark gray, very silty and dirty, fine, very tight sandstone.
8-26	10.	9651'	9661'	10'	3.0'	"	2.3'	Sandstone: light gray, salt and pepper texture with black specks and grains asabove, hard and dense, fine grains in very finely sandy and silty matrix, very tight rock and somewhat indurated, almost a shell. No cut, no stain, no odor.
							0.7'	Claystone as above, thin fine gray sand laminae showing dips flat to 2°.
8-26	11.	9661'	9671'	10'	10.0'	"	3.0'	Siltstone as in Core 9641'-9651'. Clayey, contains fine gray sand streaks and laminae with some good dips of 5° and 6°.
							2.5'	Sandstone as above with streaks of dark gray clayey siltstone. Good 8° dip in silt laminae.
							1.5'	Sand: same material as above but not as consolidated and dense, and more permeable. Composed of fine gray sand in a darker dirty-gray silt and very fine sand matrix; firm-hard fairly friable, massive, still a tight appearing rock, no cut, no stain, no oily odor. Looks wet and has a "sour wet" odor.
							2.3'	Sandstone as above. No cut, no stain, no odor.
							0.7'	Sand as above with streaks of dark gray siltstone. No cut, no stain

L. M. Lockhart "Souza" 1-36

Core Record (Cont'd.)

Date 1951	No.	From	To	Thickness	Recovery	Type Bbl.		Core Description
8-26	11. (Continued)	9661'	9671'	10'	10.0'	Dunlap Wire-line 7-5/8" Rock Head	0.7'	no odor, of oil or gas; looks wet and has a "sour wet" odor.
8-26	12.	9671'	9681'	10'	6.5'	"	0.8'	Sand as above: gray, fine, silty and some dirty ash in matrix, hard to firm-hard friable, tight appearing, no cut, no stain, wet and brackish odor.
							0.4'	Sandstone: dark gray, silty matrix, fine, solid, evenly laminated with thin silt partings giving excellent 7° dips; hard and tight.
							1.0'	Sand as above: no cut, no stain, sour wet odor.
							4.0'	Shell: composed of fine light gray sandstone, and dark gray siltstone, indurated and very hard, lime cemented, extremely tight rock. No cut, no stain, no odor.
							0.3'	Claystone as above: dark gray, massive, organic, contains a little fine sand.
8-26	13.	9681'	9691'	10'	9.0'	"	0.3'	Gray sand as above: hard, tight, no stain, no odor.
							3.0'	Siltstone: dark gray, finely sandy, hard; fine gray sand streaks, cross bedded and wavy laminae, and sharp sand partings throughout; Sand partings give good 8° dips.
							2.7'	Hard sand nubbins with scattered thin streaks of siltstone.
							2.5'	Alternating siltstone and sandstone streaks up to 2" in 50/50 proportion.
							0.5'	Hard sand nubbins as above.
8-26	14.	9691'	9701'	10'	6.0'	"	6.0'	Sandstone: gray, hard, dense, tight, silty and dirty in places, salt and popper texture with grains and specks of jet black ferro-magnesium minerals abundant; contains occasional streaks and uneven laminations of dark gray siltstone. Portions of this sandstone up to 4" are lime cemented into a shell.

L. M. Lockhart "Souza" 1-36

CORE RECORD (Cont'd.)

Date 1951	No.	From	To	Thickness	Recovery	Type Bbl.		Core Description
8-26	15	9701'	9711'	10'	10.0'	Dunlap Wire-line 7-5/8" Rock Head	4.5'	Sand: Gray, hard, dense, well consolidated, micaceous, ashy and silty matrix, fine grained, looks tight. No cut, no stain no odor.
							4.0'	Alternating streaks up to 3" of sandstone as above and finely sandy dark gray siltstone. Sandstone is lime cemented into an impervious shell in places.
							1.5'	Siltstone: hard, dark blackish-gray, clayey with fine gray sand streaks and laminae. Dips from 6° to 10°.
8-26	16.	9711'	9716'	5'	4.0'	"	4.0	Claystone: massive, solid, hard, organic, finely sandy in spots, dark brownish gray in color. One foot from top is 4" of fine gray sand. One foot from bottom (called depth 9712' @ Schlumberger measurements), Claystone showed large bronze-colored fish scales with bright and iridescent luster.
8-30	17	10007'	10017'	10'	7.5'	"	3.0'	Sandstone: dirty gray, fine, dense, hard, lime-cemented into a shell in places; contains scattered laminae and streaks to 2" of dark gray siltstone; salt and pepper texture; No cut, no stain, no odor.
							1.3'	Siltstone: dark gray, finely sandy, hard, contains laminations and streaks of fine gray sand up to 1"; dips vary 7° to 10°.
							0.7'	Sandstone as above but massive; no siltstone streaks or laminations. Hard, tight, no cut, no stain, no odor.
							2.5'	Siltstone as above with thin beds, streaks and laminae of hard, tight, gray sandstone. No cut, no stain, no odor.

L. W. Lockhart "Sousa" 1-36

Core Record (Cont'd.)

Date 1951	No.	From	To	Thickness	Recovery	Type Bbl.	Core Description
8-30	18.	10017'	10027'	10'	1.3'	Dunlap Wire-line 7-5/8" Rock Head	Sandstone: Light gray to dirty gray, fine hard, dense, tight, cemented into a shell in places with lime; contains a few thin irregular streaks of dark gray siltstone; shows salt and pepper texture at top with medium to large grains of jet black ferro-magnesium minerals; no cut, no stain, no odor.
8-30	19.	10027'	10037'	10'	10.0'	"	Siltstone and sandstone 50/50; composed of cross-bedded streaks and lenses often with irregular and wavy texture; fine laminae, irregular to rhythmic; spots, inclusions and patches throughout - of siltstone and sandstone. Siltstone is dark gray, sandy to clayey and organic appearing, hard, tight, dense. Sandstone is light gray to dirty gray; hard to very hard, indurated and lime cemented in places; tight and dense, finely laminated with silt and contains re-worked inclusions of siltstone throughout; composed chiefly of very fine subrounded quartz grains; no cut, no stain, no odor. Most dips are wavy and cross-bedded, but good dips from 6° to 8° were observed at sharp sandstone-siltstone contacts.

10635' Total Depth @ 9-4-51

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 5-9273

Coalinga, Calif. September 13, 19 51

MR. M. H. Fuller

Box 165, Burrel, Calif.

Agent for L. M. LOCKHART

DEAR SIR:

Your proposal to abandon Well No. "Souza" 1-36,

Section 36, T. 14S., R. 12E., M.D. B. & M., ----- Field, Fresno County,

dated Sept. 5, 19 51, received Sept. 12, 19 51, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The present condition of the well is as follows:

1. Complete casing record.
   376' of 14" 47.54# New Smls. SJ casing cemented to surface with 650 sax of Type-C Const. Cmt.
   Drilled 10-5/8" hole from 376' to 8315'.
   " 9-7/8" " " 8315' to 9578'.
   " 7-5/8" " " 9578' to 10,635' (Total Depth).
2. Last produced. No Production"

PROPOSAL:

"The proposed work is as follows:

1. To plug w/cmt. from 1200' up and across the fresh-water brackish-water interface which occurs at 1165'. Top of hard cmt. must be found as high as 1165'.
2. To plug w/cmt. from 20' below up to 20' above the shoe of the 14" surface casing. Top of hard cement must be found as high as 356'.
3. Location and hardness of above plugs to be witnessed by Engineer of Operator.
4. Unplugged portions of hole to be left full of heavy mud.
5. To cut 14" surface csg. at cellar depth and place a 10' cement plug in the top of same. No steel plate required over top.
6. To ABANDON well in above condition.

NOTE: Above abandonment procedure verbally approved via telephone by Mr. Chas. H. Corwin of Division of Oil & Gas, Coalinga, Sept. 5, 1951."

DECISION:

THE PROPOSAL IS APPROVED.

Bond No. 966767
GGP:ef
Orig: Company, L.A.
cc: Mr. M. H. Fuller

R. D. BUSH
State Oil and Gas Supervisor

By G. G. Peirce Deputy

115

43268 4-51 25M SPO

FORM 108. 99470 11-48 14,250
② SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin; one copy only

Burrel Calif. Sept. 5 19 51

DIVISION OF OIL AND GAS

Coalinga Calif.

In compliance with Secs. 3228, 3229, 3230, 3231 and 3232, Ch. 93, Stat. 1939, notice is hereby given that it is our intention to abandon well No. "Souza" 1-36

Sec. 36, T. 14 S., R. 12 E., M. D. B. & M. Panoche Creek Area ~~Field~~, Fresno County, commencing work on the 5th day of September 1951.

The present condition of the well is as follows:

1. Complete casing record.

376' of 14" 47.54# New Smls. SJ casing cemented to surface with 650 sax of Type-C Const. Cmt.

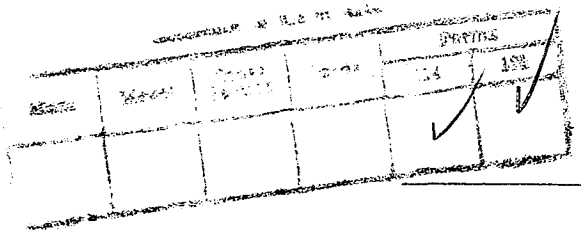
Drilled 10-5/8" hole from 376' to 8315'.
" 9-7/8" " " 8315' to 9578'.
" 7-5/8" " " 9578' to 10,635' (Total Depth).

2. Last produced. No Production _____ _____ _____
Date Net oil Gravity Cut

The proposed work is as follows:

1. To plug w/cmt. from 1200' up and across the fresh-water brackish-water interface which occurs at 1165'. Top of hard cmt. must be found as high as 1165'.
2. To plug w/cmt. from 20' below up to 20' above the shoe of the 14" surface casing. Top of hard cement must be found as high as 356'.
3. Location and hardness of above plugs to be witnessed by Engineer of Operator.
4. Unplugged portions of hole to be left full of heavy mud.
5. To cut 14" surface csg. at cellar depth and place a 10' cement plug in the top of same. No steel plate required over top.
6. To ABANDON well in above condition.

NOTE: Above abandonment procedure verbally approved via telephone by Mr. Chas. H. Corwin of Division of Oil & Gas, Coalinga, Sept. 5, 1951.



L. M. Lockhart
(Name of Operator)

By Glenn M. Earl
Glenn M. Earl, Engr.

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 5-9212

Coalinga, Calif. July 17, 1951

MR. M. H. Fuller
Box 165, Burrel, Calif.
Agent for L. M. LOCKHART

DEAR SIR:

Your proposal to drill Well No. "Souza" 1-36, Section 36, T. 14S., R. 12E., M.D.B. & M., --- Field, Fresno County, dated July 10, 1951, received July 17, 1951, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"Legal description of lease Section 36 - 14/12
The well is 660 feet S., and 660 feet W. from the E. 1/4 cor. Sec. 36-14/12
Elevation of ground above sea level 419.2 feet.
All depth measurements taken from top of Kelly Bushing, which is 12.5 feet above ground.
We estimate that the first productive oil or gas sand should be encountered at a depth of about 6750 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
14	47.54	Smls. -SJ	600'	Cmtd.
5 1/2	23	J-55 & N-80	10000	Cmtd.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Water suitable for irrigation shall be protected from contamination.
2. Mud fluid of sufficient weight and proper consistency to prevent blow-outs shall be used in drilling, and the column of mud fluid shall be maintained to the surface at all times, particularly while pulling the drill pipe.
3. Adequate blow-out prevention equipment shall be provided and kept ready for operation at all times.
4. The 14" casing shall be cemented with sufficient cement to fill back of this casing from the shoe to the ground surface.
5. This Division shall be consulted regarding the cementing depth of the 5 1/2" casing before running it into the hole.
6. THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test of the 5 1/2" water shut-off through four shot perforations immediately above the objective sand, prior to perforating the casing for production.

Bond No. 966767
GGP:gh
Orig: Company, L.A.
cc: Mr. M. H. Fuller

R. D. BUSH
State Oil and Gas Supervisor

By G. G. [signature] Deputy

Earl/Pearce 7-17-51
drilled 20¼" hole to 600
14" casing froze at 376'
no sands from 225-600
water wells in vicinity
open to 2000
Will OK the lesser
amount of casing in
this case
GG

9/5/51 Earle/Corwin
T.D. 10,635', no shows, bottomed in tight, silty sandstone.
Structurally, well is 400' higher than England "1"
Top Jergins zone cored at 6690', wet
Fresh-salt water contact at 1165'
To abandon, will plug com. 1220' to above 1165' and base 396'-356' and 10' at surface

28489 6-50 19M SPO

FORM 105 (2-49)
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

019-06032

Notice of Intention to Drill New Well

9

This notice must be given and surety bond filed before drilling begins

Los Angeles, Calif. July 10, 1951

DIVISION OF OIL AND GAS

COALINGA, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Souza" 1-36, Sec. 36, T. 14 S., R. 12 E., M.D. B. & M., PANOCHE CREEK AREA Field, FRESNO County.

Legal description of lease Section 36 - 14/12

The well is 660 feet ~~N~~ S., and 660 feet ~~E~~ W. from the E. 1/4 cor. Sec. 36-14/12
(Give location in distance from section corners or other corners of legal subdivision)

Elevation of ground above sea level 419.2 feet. 419.2 12.5

All depth measurements taken from top of Kelly Bushing, which is 12.5 feet above ground.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 6750 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
14	47.54	Smls. - SJ	600'	Cmtd.
5 1/2	23	J-55 & N-80	10000'	Cmtd.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

7-17-51

Address 824 Wilshire Blvd.,
Los Angeles 17, Calif.

L. M. LOCKHART
(Name of Operator)

Telephone number TRinity 1588

By Glenn M. Earl

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

Well Records for Artificial Penetration #6

Roberts #1

(API No. 1906039)

MAP & BOOK

STATUS

Completed Producing ______
Recompleted Producing ______
Completed Abandoned ______
Uncompleted Abandoned ______
Idle ______

RECORDS

Received | Needed

______ Well Summary ______
______ History ______
______ Log & Core ______
__ Lge __ Sm Elec. Log(s) __ Lge __ Sm
______ Direct. Survey ______
______ Other ______

Location ______
Elevation ______
Release Bond ______
Hold Bond ____ Reason ______
Final letter ______
150b ______
170 ______
121 ______
card ______

Form 19

DIVISION OF OIL AND GAS
RECEIVED
APR 22 1964
WOODLAND, CALIFORNIA

RICHFIELD OIL CORPORATION

6

COMPLETION REPORT OF New (NEW, DEEPENING, ETC.) WELL NO. Roberts #1

FIELD Cheney Ranch Area LOC. 1000 feet due south and 330 feet due east of the northwest corner of Section 33. SEC. 33 T. 14 S. R. 13 E. M.D. B. & M.

ELEV. OF GROUND 370' ALL MEAS. FROM Kelly Bushing WHICH IS 14 FT. ABOVE GROUND

COMMENCED DRILLING WORK December 22, 1963 COMPLETED DRILLING WORK January 12, 1964 DRILLING TOOLS ☒ ROTARY ☐ CABLE

ORIG. T. D. 8772' PLUG 1845 — 1692 REDRILL Plug 550 — 485 PLUG 29 — 19

DEEPENING — PLUG — JUNK None

COMMENCED PRODUCING Well abandoned January 14, 1964 ☐ FLOWING ☐ PUMPING ☐ GAS LIFT

PRODUCTION DATA

DATE	CLEAN OIL BBLS. PER DAY	GRAVITY CLEAN OIL	PER CENT WATER INCL. EMULSION	GAS M.C.F. PER DAY	TUBING PRESSURE	CASING PRESSURE
INITIAL PRODUCTION						
PROD. AFTER DAYS						

CASING RECORD

SIZE OF CASING A.P.I.	TOP OF CASING	DEPTH OF SHOE	WEIGHT OF CASING	GRADE OF CASING	NEW OR USED	SEAMLESS OR LAPWELD	SACKS CEMENT	DEPTH OF CEMENTING IF THROUGH PERFORATIONS
18"	18'	53'	conductor					
10-3/4"	16'	506'	40.5#	J-55	new	seamless	300*	

*See history

CEMENTING OR OTHER SHUT OFF RECORD

SIZE OF CASING	DEPTH LANDED	DEPTH CEMENTED	HOLE SIZE	NO. SACKS USED	KIND OF CEMENT	RESULT OF TEST
10-3/4"	506'	506'	15"	300*	class "A"	1000 psi, O.K.

PERFORATION RECORD

SIZE OF CASING	FROM	TO	SIZE OF PERFORATIONS	NUMBER OF ROWS	DISTANCE BETWEEN CENTERS	METHOD

PRESENT CONDITION OF WELL AS OF:

DATE March 12, 1964

RICHFIELD OIL CORPORATION

BY [signature]
District Development Engineer

FORM 1418 500 7-53
PRTD. IN U.S.A.

FORM 159

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

6

REPORT OF WELL ABANDONMENT

Coalinga, California

April 29 1964

Mr. J P Shea
P O Box 147
Bakersfield California
Agent for RICHFIELD OIL CORPORATION

DEAR SIR:

Your report of abandonment of Well No. "Roberts" 1, Sec. 33, T. 14 S., R. 13 E., M. D. B. & M., ——— field, Fresno County, dated March 12, 1964, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

Blanket Bond
FLH:ef
cc: Company LA
Company Bakersfield
Conservation Committee

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By C. H. Corwin
Deputy Supervisor

79185 1-63 6M SPO

May 10, 1971

Mr. R. O. Pollard
Atlantic Richfield Company
4121 South "H" Street
Bakersfield, California 93302

Dear Sir:

With reference to your abandoned well No. "Roberts" 1, Sec. 33, T. 14 S., R. 13 E., M.D.B.& M., Fresno County, this office is desirous of obtaining the identity of the various formations penetrated in drilling to the total depth of 8,772 feet.

It will be greatly appreciated if you will furnish the depths to the tops of the various formations from Kreyenhagen through Panoche.

Thank you for your assistance.

Yours truly

C. H. Corwin

C. H. CORWIN
Deputy Supervisor

CHC:fd

AtlanticRichfieldCompany

North Am an Producing Division
California trict
Post Office Box 147
Bakersfield, California 93302
Telephone 805 831 1600

W. R. Scheidecker
District Geologist

May 13, 1971

Mr. C. H. Corwin
Division of Oil and Gas
P. O. Box 616
Coalinga, California 93212

Dear Sir:

You requested information on the Atlantic Richfield "Roberts" #1 in Section 33, T. 14 S., R. 13 E., M.D. B.&M., Fresno County. The following tops were obtained from our files.

Top Kreyenhagen	4020
Top "Domengine"	4968
Base Domengine	5000
Top Dos Palos	5400
Top Panoche	?

Hope this data can be of some value to you.

Yours very truly,

W. R. Scheidecker

mm

cc: Mr. R. O. Pollard

December 22, 1963
Spudded in at 7:30 p.m. on December 22, 1963. Drilled 15" hole 0-506'.

0'	-	506'	Gravel and clay

December 23, 1963
10-3/4" casing cemented at 506': Ran 12 joints, 489.94' net, of 10-3/4", 40.5#, range 3, J-55, 8-round, seamless, ST/C casing and cemented at 506' with 150 sacks of class "A" cement premixed with 4% gel and treated with 2% calcium chloride followed by 150 sacks of neat class "A" cement treated with 2% calcium chloride. Mixing time 14 minutes. Displaced with 256 c.f. mud in 10 minutes. Cement in place at 10:30 a.m. on December 23, 1963. Used one bottom wood plug and one top rubber plug. Bumped plug with 500 psi and had small amount of cement returns to surface. Worked casing 10' from 496-506' for thirty minutes before and during the cementing operations. By B. J. Service, Inc. One power truck. Landed casing. Installed blowout prevention equipment. Tested C.S.O., pipe rams and hydril with 1000 psi for 15 minutes each, O.K. Reduced 15" hole to 9-7/8" at 506'. Drilled out cement, baffle collar and shoe and drilled 9-7/8" hole 506-1413'. Reduced 9-7/8" hole to 8-3/4" at 1413'. Drilled 8-3/4" hole 1413-7388'.

506'	-	1413'	Sand, clay and conglomerate
1413'	-	2778'	Red mudstone and siltstone
2778'	-	3757'	Sandy mudstone and siltstone
3757'	-	4980'	Shale
4980'	-	5265'	Shale and clay
5265'	-	5984'	Sand and shale
5984'	-	6824'	Shale
6824'	-	7266'	Sand and shale
7266'	-	7388'	Shale

January 5, 1964
Ran induction electric survey and recorded interval 7388-506', drilled depth 7388'. Ran sonic-caliper log and recorded interval 7382-4800'. Drilled 8-3/4" hole 7388-8037'.

7388'	-	8037'	Sand and shale

January 7, 1964
Left two cones off Bit #16 in the hole at 8037'. Cored 8-1/2" hole for junk 8037-8039' with three junk baskets and recovered both cones. Opened 8-1/2" hole to 8-3/4" 8037-8039' and drilled 8-3/4" hole 8039-8772', the total depth reached January 12, 1964.

8037'	-	8039'	On junk
8039'	-	8250'	Shale and sand
8250'	-	8258'	Shale
8258'	-	8469'	Sand
8269'	-	8772'	Sand and shale

January 12, 1964
Ran induction electric survey, checked bottom 7' low at 8779' and recorded interval 8778-7388', drilled depth 8772'. Ran sonic-caliper log, checked bottom 10' low at 8782' and recorded interval 8782-7382'. Ran modified continuous dipmeter. Took sidewall samples in the interval 4967-8736'. Reran standard continuous dipmeter.

January 12, 1964 (continued)

Sidewall Samples

All sands appear to be 50%± quartz, 40% ± feldspar

4967'	1 3/4"	sand, light gray, fine-very fine grained, soft, well sorted, subangular, excellent permeability, 5% mafic, NSF, weak musty odor.
4971'	1 3/4"	sand, light gray, fine-very fine grained, slightly silty, poorly sorted, soft, angular to subangular, fair permeability, NSF, weak musty odor.
6900'	1 3/4"	sand, light gray, fine-very fine grained, silty, poorly sorted, firm, fair permeability, 5% mafic, NSOF.
6903'	1 3/4"	sand, light gray, fine grained, slightly silty, firm, fair permeability, 5% mafic, NSOF.
6907'	1 3/4"	sand, light gray, fine-very fine grained, silty, poorly sorted, firm, fair-poor permeability, 5% mafic, sub-parallel alignment of mica in bedding plane, NSOF.
6915'	1 3/4"	sand, light gray, fine-very fine grained, silty, firm, fair permeability, 10% mafic, mica oriented as above, NSOF.
6922'	1 3/4"	sand, light gray, fine-very fine grained, silty, firm, fair permeability, 5% mafic, NSOFC.
7107'	1 3/4"	sand, light gray, fine-very fine grained, silty, poorly sorted, firm, fair-poor permeability, 5% mafic, NSOF.
7110'	1 3/4"	sand, light gray, same as last above, 5-10% mafic, 1% mineral fluorescence, NSO.
7118'	1 1/2"	sand, light gray, fine-very fine grained, some medium grains, silty, poorly sorted, firm, poor permeability, 10% mafic, NSOF.
7715'	1 1/2"	clay shale, brown, slightly silty, firm, NSOCF.
7720'	1 3/4"	clay shale, same as last above.
7733'	1 1/4"	sand, light gray, fine-very fine grained, silty, poorly sorted, angular-subangular, firm, poor permeability, 10% mafic, NSCF, slight sour petroleum (?) odor.
7737'	1 3/4"	sand, light gray, fine-very fine grained, silty, firm, poor permeability, 5-10% mafic, NSOF.
7746'	1 1/2"	sand, light gray, fine-very fine grained, 20% clayey-silt matrix, firm, poor permeability, 10% mafic, NSOF.

January 12, 1964 (continued)

Sidewall Samples (continued)

7750'	1 1/4"	sand, same as 7746'.
8092'	1 1/4"	sand, light gray, fine-very fine, clayey and silty, poorly sorted, firm, poor permeability, 10% mafic, NSOF.
8096'	1 1/4"	sand, same as last above.
8121'	1 1/4"	sand, light gray, very fine grained, clayey and silty, angular-subangular, firm, poor permeability, 20% mafic, green and orange grains, NSOF.
8125'	1 1/4"	sand, same as last above.
8688'	1 1/4"	sand, light gray, fine-very fine grained, clayey and silty, firm, poor permeability, 30% mafic, micaceous, NSOF.
8690'	1 1/4"	sand, same as last above, mica subparallel to bedding plane.
8735'	1 1/4"	sand, light gray, fine-very fine grained, clayey and silty, firm, poor permeability, 30% mafic, some orange and green grains, micaceous, NSOF.
8736'		No recovery.

January 13, 1964
Plugged 1845-1692': With open end 4-1/2" drill pipe at 1845', pumped in 75 sacks of class "A" cement treated with 3% calcium chloride and displaced with 127 c.f. of mud. Cement in place at 5:08 p.m. on January 13, 1964. Used one power truck. Ran in with open end 4-1/2" drill pipe and located top of cement plug at 1692'. Location of plug witnessed and approved by Division of Oil and Gas. Plugged 550-485': With open end 4-1/2" drill pipe at 550', pumped in 50 sacks of class "A" cement treated with 3% calcium chloride and displaced with 35 c.f. of mud. Cement in place at 9:45 p.m. on January 13, 1964. Used one power truck. Division of Oil and Gas approved placing of shoe plug at 550'. Ran in with open end 4-1/2" drill pipe and located top of cement plug at 485'.

January 14, 1964
Plugged 19-29': Put 10' cement plug 19-29' in 10-3/4" casing. Released rig and crew at 10:00 a.m. on January 14, 1964. Well abandoned on January 14, 1964. Welded steel plate on surface casing on March 12, 1964.

FORM 109-D

CALIFORNIA RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 564-17

Mr. J P Shea
P O Box 147
Bakersfield California

Agent for RICHFIELD OIL CORPORATION

Coalinga Calif.
January 14, 1964

DEAR SIR:

Operations at well No. "Roberts" 1, Sec. 33, T. 14 S., R. 13 E., M.D. B & M. Field, in Fresno County, were witnessed on January 13, 1964. Mr. F. L. Hill, representative of the supervisor was present from 8:00 p.m. to 10:00 p.m. There were also present E. Jackson, Drilling Foreman.

Present condition of well: 10-3/4" cem. 506', T.D. 8772', Plugged with cement 1845'-1692' and 550'-439'.

The operations were performed for the purpose of plugging the hole in the process of abandonment.

Mr. Jackson reported:

1. An 8-3/4" hole was drilled from 506' to 8772'.
2. No oil or gas shows were encountered.
3. On January 13, 1964, 75 sacks of cement was pumped into the hole through 4½" drill pipe hanging at 1845', filling to 1692'.

THE INSPECTOR NOTED:

1. The cement plug at 1692' supported two tons of the weight of the drill pipe.
2. On January 13, 1964, 50 sacks of cement was pumped into the hole through 4½" drill pipe hanging at 550', calculated to fill to 439'±.

THE CEMENTING OPERATIONS ARE APPROVED.

FLH:ef
cc: Company LA
Company Bakersfield

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By C. H. Corwin Deputy

115

86313 4-63 15M ② SPO

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 564-19

Mr. J P Shea
P O Box 147
Bakersfield California
Agent for RICHFIELD OIL CORPORATION

Coalinga Calif.
January 14 1964

DEAR SIR:

Your proposal to abandon Well No. "Roberts" 1, Section 33, T. 14S., R. 13E., M.D.B. & M., ——— Field, Fresno County, dated Jan. 13, 1964, received Jan. 14, 1964, has been examined in conjunction with records filed in this office. Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"THE PRESENT CONDITION OF THE WELL IS:

1. Total Depth: 6772'
2. Complete casing record, including plugs:
   35' - 18", 59# conductor set at 53'.
   490' - 10-3/4", 40.5#, J-55 cemented at 506'.
3. Last Produced -
4. Oil or Gas showings and results of tests: None
5. Formation at bottom: Panoche-Cretaceous
6. Base of fresh water sands: 1750 "

PROPOSAL:

"THE PROPOSED WORK IS (Confirming telephone conversation, Shea - Corwin, 1-13-64)

1. Plug 1800-1585'± with 75 sacks of class "A" cement. Top of plug to be located and approved by Division of Oil and Gas.
2. Plug 550-443'± with 50 sacks of class "A" cement. Location of shoe plug to be witnessed by Richfield Oil Corporation representative.
3. Place 10' surface plug and abandon hole and location."

DECISION:

THE PROPOSAL IS APPROVED.

Blanket Bond
CHC:ef
cc: Company LA
Company Bakersfield

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By C. H. Corwin, Deputy

79186 1-63 50M SPO

FORM 108. 60287 3-62 10M ② SPO

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin; one copy only

Bakersfield, Calif. January 13, 1964

DIVISION OF OIL AND GAS

In compliance with Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. Roberts #1, Sec. 33, T. 14 S., R. 13 E., M.D. B. & M., Cheney Ranch ~~Field~~ Area, Fresno County, commencing work on January 13, 1964.

THE PRESENT CONDITION OF THE WELL IS:	ADDITIONAL DATA FOR DRY HOLE
1. Total Depth: 8772'	4. Oil or Gas showings and results of tests: None
2. Complete casing record, including plugs: 35' - 18", 59# conductor set at 53'. 490' - 10-3/4", 40.5#, J-55 cemented at 506'.	5. Stratigraphic markers and depths:
3. Last Produced - (Date) (Oil, B/D) (Water, B/D)	6. Formation at bottom: Panoche-Cretaceous 7. Base of fresh water sands: 1750

THE PROPOSED WORK IS (Confirming telephone conversation, Shea - Corwin, 1-13-64)

1. Plug 1800-1585'± with 75 sacks of class "A" cement. Top of plug to be located and approved by Division of Oil and Gas.
2. Plug 550-443'± with 50 sacks of class "A" cement. Location of shoe plug to be witnessed by Richfield Oil Corporation representative.
3. Place 10' surface plug and abandon hole and location.

P. O. Box 147, Bakersfield, Calif.
(Address)

TEmple 1-1600
(Telephone No.)

RICHFIELD OIL CORPORATION
(Name of Operator)

By [signature]
District Development Engineer

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

Form 136A

MEMORANDUM OF TELEPHONE OR PERSONAL CONVERSATION
(Proposed Well Operations)

Operator Kimball Oil Corp Well No. Roberts 1

Field Chevy Knoch Area Sec. 32 T. 11S R. 13E MD B&M
personal

A telephone conversation was held, concerning above well, with Mr. Jon Shea

for above operator 1/13 1962, at 11:15 A M.

Details of the conversation were as follows:

Total depth 2800' Plugs

Casing record 10 3/4" cem 506'

Oil or gas showings None per E-log and sidewall samples

Results of tests —

Stratigraphic markers —

Geologic age at bottom Cretaceous Base of fresh water 1750'

Operator proposes the following work:

Abandon by plugging 1800' - 1600';

" 525' - 450'

" 10' - 0'

Additional requirements outlined:

Test of W.S.O. to be witnessed by D.O.G. at By operator at

Plugs to be located by D.O.G. at 1600' By operator at 450'

Notice to be filed immediately (✓) Yes ( ) Not necessary

Other data

(Signed) Ofc

Title

FORM 109-D

CALIFORNIA RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 563-386

Mr. J P Shea
P O Box 147
Bakersfield California
Agent for RICHFIELD OIL CORPORATION

Coalinga Calif.
December 30, 1963

DEAR SIR:

Operations at well No. "Roberts" 1, Sec. 33, T. 14S, R. 13E, M D B & M.
---Field, in Fresno County, were witnessed
on December 26, 1963. Mr. F. L. Hill, representative of the supervisor was present
from 5:00 p.m. to 5:30 p.m. There were also present M. M. Chistman, Drilling Foreman

Present condition of well: 10-3/4" cem. 506'. T.D. 2750' (drilling)

The operations were performed for the purpose of inspecting Blow-out Prevention Equipment and Installation.

Mr. --- reported:

THE BLOW-OUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

FLH:fd
cc: Company LA
Company Bakersfield

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By C. H. Corwin Deputy

96313 4-63 15M ② SPO

Form 109-D (BOPE Memo)

B. O. P. E. MEMO

No. T [illegible]

Company Richfield Oil Corporation Date ______ 19____

Operations at well No. "Roberts" 1 Sec. 33 T. 14S R. 13E MD B&M.
______ Field Fresno County, were witnessed

on December 26, 1963. Mr. F. L. Hill, representative of the supervisor was

present from 5 PM to 5:30 PM. There was also present M. M. Christman - Drilling Foreman

Present condition of well: 10 3/4" cem. 506'. T.D. 2750' (drilling)

Operations were performed for purpose of inspecting BOP equipment and installation.

Mr. Christman reported:

✓. On December 23 1963, 10 3/4", 40.5 lb. casing was cemented in a 15 " hole at 506 ' with 300 sacks/~~cu.ft~~. of cement.
✓. Cement returned/~~did not return~~ to the surface.
___. An additional ______ sacks/cu.ft. of cement was placed around the ______ " casing from the surface.
✓. The Shaffer positive rams, the Shaffer pipe rams, and the Hydril blowout preventer were each tested with a closed-in pressure of 1200 psi for 15 minutes, ______ psi for ____ minutes, and ______ psi for ____ minutes, respectively.
✓. An 8 3/4 " hole was being drilled ahead at 2750 '.

THE ENGINEER NOTED that the well was equipped with the following BOP equipment:

✓. A Shaffer manually and hydraulically operated double control gate for closing in the well with the drill pipe/~~tubing~~ out of the hole, and for closing around the 4 1/2 " drill pipe/~~tubing~~.
✓. A Hydril blow-out preventer for closing in the well with the drill pipe/~~tubing~~ out of the hole, and for closing around the 4 1/2 " drill pipe/tubing.
___. A ______ manually and hydraulically operated control gate for closing in the well with the drill pipe/tubing out of the hole.
___. A ______ manually and hydraulically operated control gate for closing around the ______ " drill pipe/tubing.
___. A ______ blow-out preventer for closing around the ______ " drill pipe/tubing.
✓. The controls for the above equipment were located outside the derrick and on the derrick floor.
✓. A 2 " mud fill-up line with a 2 " high-pressure stopcock into the 10 3/4 " casing below the above equipment.
✓. A high-pressure stopcock on the kelly/~~goose neck/stand pipe~~.

___. Remarks ______

THE BLOW-OUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

[illegible initials]

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 563-503

Mr. J P Shea
P O Box 147
Bakersfield California

Agent for RICHFIELD OIL CORPORATION

Coalinga Calif.
December 19 1963

DEAR SIR:

Your proposal to drill Well No. "Roberts" 1,
Section 33, T. 14S, R. 13E, M D B. & M., Fresno Field, County,
dated Dec. 18, 1963, received Dec. 19, 1963, has been examined in conjunction with records filed in this office.
Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"Legal description of mineral-right lease, consisting of 160 acres, is as follows:
The Roberts Lease in Section 33 includes the northwest quarter of the Section.
Do mineral and surface leases coincide? Yes
Location of Well: 1000 feet due south and 330 feet due east at right angles to said line from the Northwest corner of section 33
Elevation of ground above sea level 370 feet Topo datum.
All depth measurements taken from top of Kelly Bushing which is 13.6 feet above ground."

PROPOSAL:

"PROPOSED CASING PROGRAM

Size of Casing Inches A.P.I.	Weight	Grade and Type	Top	Bottom	Cementing Depths
18"	59#	conductor	18'	53'	
10-3/4"	40.5#	J-55	17'	500'±	500'±

Intended zone of completion: ---- --- Estimated total depth 8000'
Please designate as "Prospect Well"
It is understood that if changes in this plan become necessary we are to notify you immediately."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The 10-3/4" surface casing shall be cemented with sufficient cement to fill back of this casing from the shoe to the ground surface.
2. Mud fluid of sufficient weight and proper consistency to prevent blow-outs shall be used in drilling, and the column of mud fluid shall be maintained to the surface at all times, particularly while pulling the drill pipe.
3. Adequate blow-out prevention equipment shall be provided and kept ready for operation at all times.
4. In the event that additional casing is landed or cemented in the well, one of the following operations shall be performed for the protection of fresh water:
   a. Sufficient cement shall be used at the shoe of the casing to fill back of this casing to above the base of the fresh water sands, or
   b. The casing shall be cemented through perforations at the base of the fresh water sands.
5. This Division shall be notified:
   a. To inspect blow-out prevention equipment prior to drilling below a depth of 1500'.
   b. Before landing or cementing any casing below the 10-3/4" surface casing, and additional requirements will be outlined at that time.
   c. To witness a test of each possible water shut-off.

NOTE: Information on file in this office indicates that the base of the usable fresh water deposits should be encountered at a depth of approximately 1800'.

lanket Bond
CS:fd
c: Company LA
Company COM Bakersfield

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By C. J. Corwin, Deputy

FORM 105

STATE OF CALIFORNIA
THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

019-06037

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

4

This notice and surety bond must be filed before drilling begins

Bakersfield, Calif. December 18, 1963

DIVISION OF OIL AND GAS Coalinga

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence drilling well No. ROCO-Roberts #1, Sec. 33, T. 14 S., R. 13 E., M.D. B. & M., Cheney Ranch Area Field, Fresno County.

Legal description of mineral-right lease, consisting of 160 acres, is as follows: The Roberts (Attach map or plat to scale)
Lease in Section 33 includes the northwest quarter of the Section.

Do mineral and surface leases coincide? Yes X No ____ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of Well: 1000 feet due south (Direction) along ~~section~~ property line and 330 feet due east (Direction) at right angles to said line from the Northwest corner of ~~section~~ property 33

Elevation of ground above sea level 370 feet Topo datum.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table or Kelly Bushing) which is 13.6 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
18"	59#	conductor	18'	53'	
10-3/4"	40.5#	J-55	17'	500'±	500'±

Intended zone(s) of completion: --- (Name) --- (Depth, top and bottom) Estimated total depth 8000'

Reference to file of this ... Map ... Card ... 121 ✓ ✓

Please designate as "Prospect Well"

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address P. O. Box 147
Bakersfield, California

Telephone Number TE 1-1600

Richfield Oil Corporation (Name of Operator)

By [signature]
District Development Engineer

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

SPO

Well Records for Artificial Penetration #11

Silver Creek #27X

(API No. 1920726)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES

REPORT OF WELL PLUGGING AND ABANDONMENT

J. W. Covello, Agent
CENCAL OIL COMPANY, INC.
1701 Westwind Drive
Bakersfield, CA 93301

Coalinga, California
July 20, 1995

Your report of plugging and abandonment of well **"Silver Creek" 27X**, A.P.I. No. **019-20726**, Section **29**, T. **14 S**, R. **13 E**, M.D.B. & M., **Cheney Ranch Gas** field, **Fresno** County, dated **May 9, 1995**, received **May 17, 1995**, has been examined in conjunction with records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

NOTES: 1. Surface plugging completed on December 29, 1994.

2. Site inspection made and approved **June 15, 1995.**

RH/kt

cc: Well File

WILLIAM F. GUERARD, JR.
STATE OIL AND GAS SUPERVISOR

By Glenn R. Muggelberg
(for) RICHARD F. CURTIN
DEPUTY SUPERVISOR

OG159

DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company CENCAL DRILLING, INC Well No. "SILVER CREEK" 27X

API No. 019-~~20712~~ 20726 Sec. 29, T. 14 S., R. 13 E., M.D.B.&M.

Field CHENEY RANCH GAS County FRESNO

Oil		Water disposal		Completed	
Gas	✓	Waterflood		Recompleted	
Gas-Open to Oil Zone		Steamflood		Idle	
Drilling		Fire Flood		Abandoned	✓
Dry Hole		Air Injection		Abandoned BLM	(date)
Gas Storage		Gas Injection			
Observation		CO_2 Injection			
Waterflood Source		LPG Injection		POOL Abd	

ENGINEER'S CHECK LIST

1. Summary, History, Core & Sidewall Records ✓
2. Electric Logs ✓
3. Operator's Name ✓
4. Signature ✓
5. Well Designation ✓
6. Location ✓
7. Elevation ✓
8. Notices ✓
9. "T" Reports ✓
10. Casing Record ✓
11. Plugs ✓
12. Surface Inspection ok RH 6/15/95
13. Production
14. Directional Survey

CLERICAL CHECK LIST

1. Form OGD121 ✓
2. Form OGD159(Final Letter) ✓
3. Form OGD159(Final Letter-BLM)
4. Form OGD150B (Release of Bond)
5. P.I. ✓
6. EDP

Abandon Pool/Type ___/___

Date ___/___/___

(Conversions Only)

Electric Logs

D-5-9
R-5-17
S-12-29-94
L-6-15-95

RECORDS COMPLETE RH 5/26/95

APPROVED RH 6/16/95

NOT APPROVED

Reason:

Return to: dead

RELEASE BOND no Bond

Date Eligible

(Use date last needed records were received)

MAP AND MAP BOOK ✱ W5-2 RH 6/14/95 SW/4

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Cencal Drilling, Inc.
Operator Cen Cal Drilling, Inc. Field Chaney Ranch Gas Chaney Ranch County Fresno
Well "Silver Creek" 27x, Sec. 29, T 14s, R 13e, MD B. & M.
A.P.I. No. 019-20726 Name Clofas W. Case (Person submitting report) Title (President, Secretary or Agent)
Date May 9, 1995

Signature Clofas W. Case

7010 W. Cerini Riverdale, CA 93656 (Address)
209-867-3912 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
11-9-94	M.I.R.U. Removed Hyd. Pump Unit. Bled off Tbg PSI 250 unseated pump Laid polish rod down installed rod B.O.P. hook up casing started bleading csg off. well started flowing on tbg. Hooked up to storage tanks. well went to 500 PSI. Bled gas off to 200 PSI. Started to get water well died laid 106 3/4" rods & 114 5/8" rods down . Closed well in.
11-28-94	M.I.R.U.
12-9-94	Bled gas off tbg & csg. Removed xmas tree. Installed B.O.P. Hooked up vac. truck to tbg. pumped 80 bbls down tbg. Killed well. Pulled donut loose broke off & laid down pulled 1 std. tbg. tbg. hung up. worked free P.O.H. Laid mandrel down. R.I.H. w/tbg. measured picked up 11 jts.
12-10-94	Opened up well. Moved in circ. pump. Rigged up cleaned well out from 7248' - 7280' . Rigged up foam air w/ tbg @ 7280' mixed & displaced 53 cu.ft. class G cement displaced w/ 147 cu.ft. formation H20 cement in place @ 12:15 pm Pulled out 15 stds. tbg.
12-14-94	Opened up well lowered tbg. Tag top of cement @ 6680' changed well over to mud 72# set 15 stds tbg in derrick laid tbg. down. Rigged up KFE shot cavit shot @ 1605' - 1595' witness by D.o.G.
12-15-94	Ran 51 jts. in hole 1601' rigged up to circ. cud could not cir. mud went in to formation rigged up foam air mixed & displaced 35 cu.ft class G cement w/724#silica flour 3%cacl2 displaced w/16cu.ft. mud cement in place. Pulled tbg. out of hole W.O.C. tag cement top @ 1508'. Laid 51 jts. 2 3/8" tbg. down.
12-19-94	Cut off csg 6' below surface, Mixed 8 sacks of cement cement from 30' - 5' inside & outside.

RECEIVED
MAY 17 1995
DIVISION OF OIL & GAS
COALINGA

OG103 (2/92/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
(209)-935-2941

No.T 595-4

REPORT ON OPERATIONS

Kurt E. Sickles
CENCAL DRILLING, INC
P O BOX 11006
Bakersfield CA 93309

Coalinga, California
January 3, 1995

Your operations at well "Silver Creek" 27X API No. 019-20726, Sec. 24, T. 14 S., R. 13 E., M.D.B.&M., Cheney Ranch Gas Field, in Fresno County were witnessed on December 29, 1994. G. Philbrick, representative of the supervisor, was present from 1000 to 1005. There were also present Clofas Case w/C. Case Co..

Present condition of well: 9" cem. 1710'; 4 1/2" cem. 7332'; perf. 7250'-7235', 6984'-6966' & 6876' WSO; TD. 7460'; cavity shot 1607'; plugged w/cem. 7332'-7286', 7280'-6686', 1601'-1510' & 30'-5'.

The operations were performed for the purpose of abandonment.

DECISION: THE PLUGGING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED.

DEFICIENCIES: None

CONTRACTOR: C. Case Co.

GP/kt

WILLIAM F. GUERARD, JR.
STATE OIL AND GAS SUPERVISOR
By Richard F. Curtin
RICHARD F. CURTIN
Deputy Supervisor

OG109

nfr

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

4

Operator Cencal Drilling, INC. Well No. "Silver Creek" 27X
API No. 019-20726 Sec. 27, T. 14S, R. 13E, MD B&M
Field Cheney Ranch Gas, County Fresno. On 12/29/94,
Mr./Ms [illegible], representative of the supervisor, was present from 10:00 to 1005.
There were also present [illegible] w/ C. Case Co.

Casing record of well: 9" Cem 1710'; 4½" cem 7332 perf 7250-7235, 6984-6966 & 6876 WSO TD 7460 cav. shot 1607 plugged w/cem 7332-7286, 7280-6686, 1601-1510 & 30-5'

The operations were performed for the purpose of abandonment

☑ The plugging/~~cementing~~ operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug @ ____' is approved.

Hole size: ___" fr. ___' to ___', ___" to ___' & ___" to ___'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered: CAV " shot/~~cut~~ at 1607 (12-14-94 22:35 ?) ', ___', ___' pulled fr. ___';
___" shot/cut at ___', ___', ___' pulled fr. ___'.

Junk (in hole): ___

Hole fluid (bailed to) at ___'. Witnessed by ___

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
72 #/ft³ 20 #/100 ft²	12-14-94	110	6686		surf	C. Park

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
12-13-94	53 cf	tbg 7280		Rptd by C. Case	6686	10,000#	12-14-94 1010	C. Park
12-15-94	35 cf	tbg 1601		"	1510	2000#	12-15-94 1430	C. Park
12/29	12 sx	Dumped @ surf		"	5'	Visual	12/29/94 10:00	[illegible]
						Csg + ann cemented		

OGD10 (9/91/GSR1/5M)

Def: NONE

Contractor: C. Case INC

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES

No. P593-420
Field Code 134
Area Code 00
New Pool Code abd
Old Pool Code 05

PERMIT TO CONDUCT WELL OPERATIONS

Kurt E. Sickles
CENCAL DRILLING, INC
P O BOX 11006
Bakersfield CA 93309

Coalinga, California
December 10, 1993

Your proposal to abandon well "Silver Creek" 27X, A.P.I. No. 019-20726, Section 29, T. 14 S, R. 13 E, M.D.B. & M., Cheney Ranch field, ------- area, U. cretaceous pool, Fresno County, dated 12/6/93, received 12/8/93 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED.

1. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.

2. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and minimum gel-shear strength (10 min.) of 20 lbs./100 sq. ft.

3. The surface plug is placed from at least 30' below surface.

4. THIS DIVISION SHALL BE NOTIFIED:

   a. TO WITNESS the location and hardness of the cement plug from 7286' to 6776'.

   b. TO WITNESS the mudding of the well.

   c. TO WITNESS a cavity shot at 1600'.

   d. TO WITNESS the location and hardness of the cement plug from 1600' to 1500'.

   e. TO WITNESS the location and hardness of the surface plug after the casing has been cut 5' below ground.

   f. When the well site has been restored to a condition that will pass environmental inspection.

Blanket Bond
GWM/jp

ok Lemr ok
Handle 6/15/95

WILLIAM F. GUERARD, JR.
STATE OIL AND SUPERVISOR

By Richard F. Curtin
RICHARD F. CURTIN
Deputy Supervisor

Engineer Glenn Muggelberg

Phone (209) 935-2941

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations [illegible]en suspended.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Abandon Well

420

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
	B		

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well "Silver Creek" 27X, API No. 019-20726

Sec. 29, T. 14S, R. 13E, MD B. & M., Chevez Ranch Field, Fresno County.

commencing work on January, 1994.

The present condition of the well is:

1. Total depth 7460

2. Complete casing record, including plugs and perforations (present hole)

See Attached Detail

3. Last produced ? (Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

4. Last injected (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths):

5. Oil or gas shows

6. Stratigraphic markers

7. Formation and age at total depth

8. Base of fresh water sands 1600'

9. Is this a critical well according to the definition on the reverse side of this form? ☐ Yes ☒ No

The proposed work is as follows:

1) Equilize Plug #1 7286 - 6776'

2) Cavity shoot @ 1600' Equilize Plug #2 1600'-1500'

3) Plug #3 25' & surface cut csg @ 5' below G.L. & weld on steel cap.

RECEIVED
DEC 0 8 1993
DIVISION OF OIL & GAS
COALINGA

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address 1400 Easton Dr. #135A (Street)
Bakersfield Ca 93309 (City) (State) (Zip)
Telephone Number (805) 323 6005 (Area Code) (Number)

Cencal Poly Inc. (Name of Operator)
By Kurt Sickles (Print Name)
Kurt Sickles (Signature) 12/6/93 (Date)

OG108 (8/87/DWRR/5M)

STATE OF CALIFORNIA—THE RESOUR[illegible] AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS,
AND GEOTHERMAL RESOURCES
466 NORTH FIFTH STREET
COALINGA, CALIFORNIA 93210-1793
(209) 935-2941
TELEFAX (209) 935-5154

PETE WILSON, *Governor*

April 3, 1995

Kurt E. Sickles, Agent
CENCAL DRILLING, INC.
P.O. Box 11006
Bakersfield, CA 93309

Subject: Past Due Records

The California Division of Oil, Gas & Geothermal Resources sent three Notice of Records Due all dated March 1, 1995, (copies enclosed) pertaining to wells "Silver Creek" 14X, (019-20712), "Cheney Ranch" 15X, (019-21446) and "Silver Creek" 27X, (019-20726) all in Sec. 29, T. 14 S., R. 13 E., in the Cheney Ranch field, that you have not filed with the Division as required by Division 3 of the Public Resources Code.

Failure to file these records is a violation of law punishable by a substantial civil penalty as provided by Section 3235.5 of the Public Resources Code.

Unless all records listed in the enclosed Notice of Records Due are received in this office by May 1, 1995, the Division will begin proceedings for the imposition of appropriate civil penalties.

Sincerely

Kathie Ioannilo

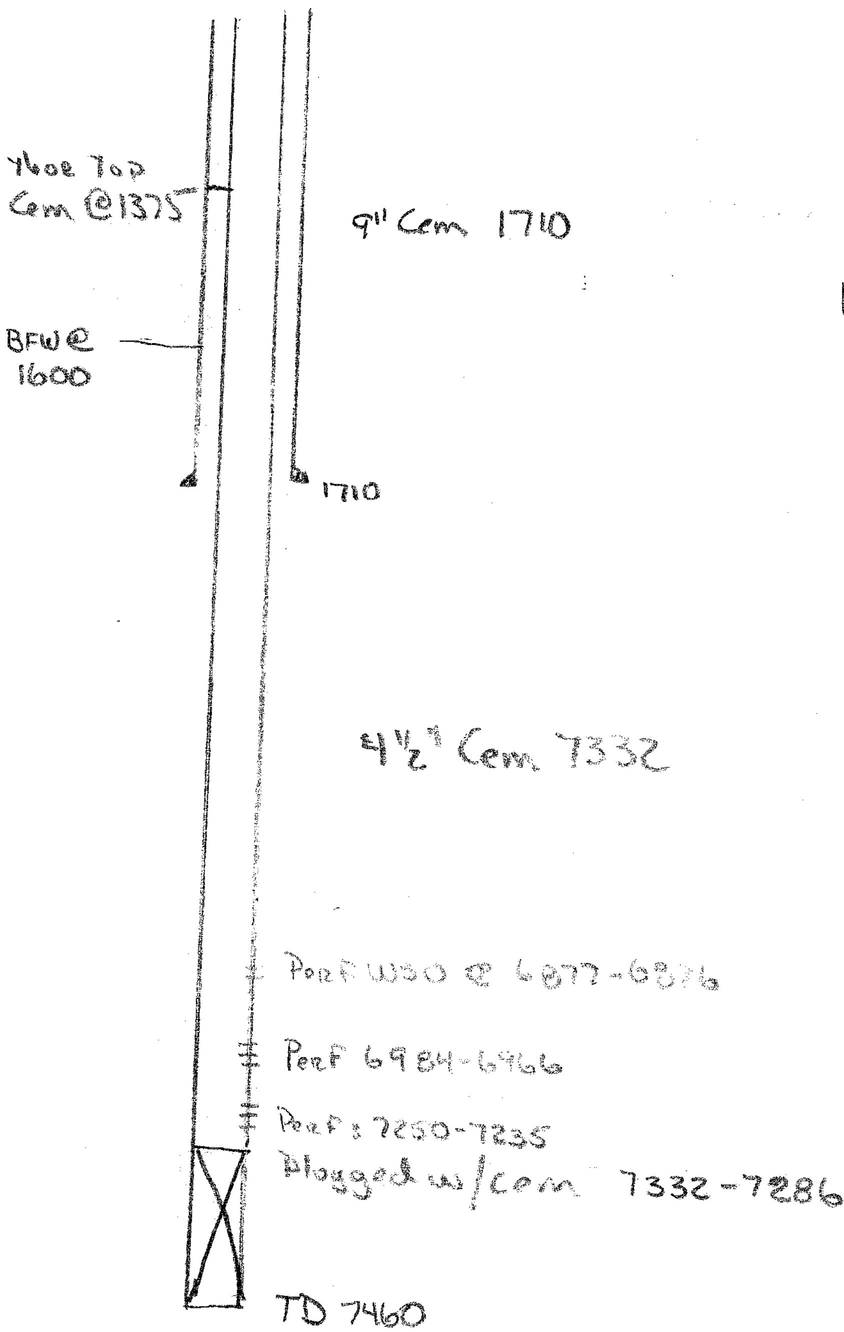
(FOR) Richard F. Curtin
District Deputy

RFC/kt

Enclosure

Chaney Ranch Gas
Central Drilling, Inc

"Silver Cr 1c 27x"



12¼" hole

9" 45# Csg Cem 1710 w/362 sx [illegible]
150 sx "G"

Tagged Cem @ 753-1710 = 957' LF of Cem [illegible]

Vol Height 9" Csg w 12¼" hole = 2.65 LF/CF

Volume of Cem (362sx)(1.89) = 684 cF
(150sx)(1.15) = 172 cF
856 cF

Volume of 9" 45# = 2.84 LF/CF = .352 CF/LF

(.352 CF/LF)(957 LF) = 337 cF left in Csg

856 - 337 = 519 cF Displaced

(519 cF)(2.65 LF/CF) = 1375'

FORM 103

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch Gas

Well No. "Silver Creek" 27X, Sec. 29, T. 14S, R. 13E, M. D. B. & M.

Date March 27, 1975, 19

Signed M. J. Frasch
M. J. Frasch

P. O. Box 52
Bakersfield, Ca. 93302 (805) 831-7461
(Address) (Telephone Number)

Title Agent
(President, Secretary or Agent)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
2-8-74	Moved in equipment and rigged up to pull tubing. Killed well with salt water using Halliburton pumping equipment.
3-11-74	Installed B.O.E., pulled and laid down 29 joints of 2-3/8" tubing. Stood 205 joints of 2-3/8" tubing in derrick. Rigged up Welex and perforated interval 6966-6984 with two ½" holes per foot. Perforations were shot using casing gun. Picked up 27 joints of 1" tubing and reran 205 joints of 2-3/8" tubing.
3-12-74	Swabbed well from 500' to 6200'. Closed in well and moved out equipment.

Tubing pressure 2300#.
Casing pressure 2560#.

29-14S-13E**

MUNGER'S HISTORY RECORD

** SEC. 29-14S-13E

OPERATOR E. A. BENDER, OPR. LEASE "Silver Creek" WELL NO. 27X-29

FIELD AREA Cheney Ranch COUNTY Fresno ELEV. 388'KB

MAP W-33 SPUD. AM, 12/7/72

LOCATION Fr SW cor.Sec., 660'N 990'E COMP. 6/8/73

RSM.

RECOMP.

ABAND.

DATE OF ISSUE: 6/23/73 T. D. 7460'

A.P.I. 019-20726 CLASSIFICATION: Gas PLUG

CASING RECORD

SIZE	DEPTH	
9	1700	cmtd.
4½	7332	cmtd. perfs. 7235-50'
2-7/8	7194	Hung

MARKERS

INTERVAL

7235-50'

DATE	DEPTH	
12/6/72		Moving in equipment.
12/7/72	130	Drilling.
12/8/72	1010	Drilling.
12/9/72		Location, D.O.G.
12/11/72	2050	Drilling. 9" cmtd. at 1700'.
12/12/72	3077	Drilling.
12/13/72	4150	Drilling.
12/14/72	5071	Drilling.
12/15/72	5468	Drilling.
12/18/72	6851	Drilling.
12/19/72	7145	Drilling.
12/20/72	7460	Total Depth. Drilled.
12/22/72		Ran I-ES, Sonic Logs and took Sidewall Samples. Standing cemented with 4½" at 7332'.
12/28/72		Changed to salt water.
12/29/72		Ran Neutron Log to 7256'. Perforated 6875-76', WSOK. Perforated 7235-45'. 2-7/8" tubing hung at 7194', with packer 7164'.
1/3/73		Swabbed in. Blowing well.
1/9/73		Idle account of weather.
3/12/73		Waiting on weather to move in production equipment.
3/14/73		Resumed 3/13/73. Moved in production rig. Killed
3/15/73		with salt water. Pulled tubing.
3/19/73		Squeezing to shut off water entry.
3/21/73		Reperforated 7235-7250'. Shut down because of weather.
6/6/73		Planned to run pressure build up test.
6/18/73		Tested 450 MCF/D, 600# T.P.

CONTRACTOR Gary Drlg.Co. D-3

GEOLOGIST

PROPOSED DEPTH 7500'

½ mile South and a little East of E.A. Bender, Oper.'s "Silver Creek" 14X-29, T.D. 7394', completed 10/12/72, flowed estimated 2000 MCF thru 12/64" bn. 2100#F.P., Shut In 2600#. Interval: 7236-7241' (Moreno Sand).

Bell Petroleum Co. holds a ¼ interest in the play.

E.V.F. 1-6-13

FORM 107

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

P-5 No. 32

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Bakersfield, Calif. Feb. 6th, 19 74

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. E.A. Bender oper. well 27X-29 (Cross out unnecessary words), Sec. 29, T. 14S, R. 13E, MD B. & M. Cheney Ranch Field, Fresno County.

The present condition of the well is as follows:

1. Total depth. 7460

Reference to file of data

Top			
		121	121
		✓	✓

2. Complete casing record, including plugs:

9" 45# Cemented at 1710

4½ 10.9# + 9.5# Cemented at 7332. Bridge plug in 4½" at 7280.

Perforations:- 4. - .32" holes/ft WSOK @ 6876-72

After Squeeze Job { 4 - .32 holes/ft 7229-39 - (Squeezed)
2. - .32 holes/ft. 7235-7245
4. - .32 holes/ft 7245-7250

3. Last produced. Nov (Date) 1973 (Oil, B/D) 5 B/D Condensate (Water, B/D) (Gas, Mcf/D) 160 MCF

The proposed work is as follows:

Kill well with salt water, pull tubing. Install B.O.E and Perforate 4½" casing 6966-6984. Rerun tubing install Xmas tree and return to production.

Feb 1 1974

P.O. Box 52
(Address)
Bakersfield, Calif 93302
(Telephone No.)

E.A. Bender Operator
(Name of Operator)
By C.J. Green, Geologist

48086-70B 11-70 15M OSP

RECORDS RECEIVED

Date Received 10-25-73
Well Summary (Form 100) ✓
History (Form 103) ✓
Core Record (Form 101) —
Elec. Log - Lge. ✓ Small
Direct. Survey —
Sidewall Samples ✓
Other formation & Hydrocarbon log

Notice of Records Due
Form 170 —

Date Final Records Received —

ENGINEER'S CHECK LIST

1. Summary, History, & ~~Core record~~ (dupl.) ✓
2. Electric Log ✓
3. Operator's Name ✓
4. Signature ✓
5. Well Designation ✓
6. Location ✓
7. Elevation ✓
8. Notices ✓
9. "T" Reports ✓
10. Casing Record ✓
11. Plugs ✓
12. Surface Inspection ✓
13. Production ✓

RECORDS NOT APPROVED
Reason: ~~Need Gas production~~

RECORDS APPROVED Yes

RELEASE BOND Blanket
Date Eligible
(Use date last needed records were received.)

MAP & MAP BOOK # WS-2 12-12-73
E.V.K.

STATUS

	DATE
Producing - Oil	
Idle - Oil	
Abandoned - Oil	
Drilling - Idle	
Abandoned - Dry Hole	
Producing - Gas ✓	
Idle - Gas	
Abandoned - Gas	
Gas - Open to Oil Zone	
Water Flood Source	
Water Disposal	
Water Flood	
Steam Flood	
Fire Flood	
Air Injection	
Gas Injection	
CO_2 Injection	
LPG Injection	
Observation	

RECOMPLETED —

CLERICAL CHECK LIST

1. Location change ____ (F-165)
2. Elevation change ____ (F-165)
3. Form 121 ✓
4. Form 159 (Final Letter) —
5. Form 150b (Release of Bond) —

Record O.K.
12-12-73
E.V.K.

FORM 19

RECORDS RECEIVED

Date Received
Well Summary (Form 100)
History (Form 103)
Core Record (Form 121)
Elec. Log - Lge. Small
Direct. Survey
Sidewall Samples
Other

Notice of Records Due
Form 170

Date Final Records Received

ENGINEER'S CHECK LIST

1. Summary, History, & Core record (dupl.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)

MAP & MAP BOOK

STATUS

DATE

Producing - Oil
Idle - Oil
Abandoned - Oil
Drilling - Idle
Abandoned - Dry Hole
Producing - Gas
Idle - Gas
Abandoned - Gas
Gas - Open to Oil Zone
Water Flood Source
Water Disposal
Water Flood
Steam Flood
Fire Flood
Air Injection
Gas Injection
CO_2 Injection
LPG Injection
Observation

RECOMPLETED

CLERICAL CHECK LIST

1. Location change (F-165)
2. Elevation change (F-165)
3. Form 121
4. Form 159 (Final Letter)
5. Form 150b (Release of Bond)

FORM 19

FORM 100

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator E. A. Bender, Operator Well No. Silver Creek 27X-29

Sec. 29, T. 14S, R. 13E, M. D. B. & M. Cheney Ranch Field Fresno County.

Location 660' North and 990' East from S. W. Corner, Section 29
(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 377 feet.

All depth measurements taken from top of Kelly Bushing which is 11 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date July 23, 1973

Signed M. J. Frasch
M. J. Frasch

Fred Green
~~Engineer~~ or Geologist

(Superintendent)

Title Agent
(President, Secretary or Agent)

Commenced drilling 12-7-72

Completed drilling 12-20-72

Total depth 7460' Plugged depth ~~7280'~~ 7230

Junk None

DIVISION OF OIL AND GAS
RECEIVED
DEC 25 1973
CONSERVATION COMMITTEE

GEOLOGICAL MARKERS	DEPTH
Base Kreyenhagen Shale	4510'
Base Eocene Sand	5390'

Geologic age at total depth: Cretaceous

Commenced producing 4-24-73 (Date) Flowing/~~gas lift/pumping~~ (Cross out unnecessary words) Name of producing zone Cretaceous Sand

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	Condensate mist	--	--	573 rate	405#	540#
Production after 30 days	Shut in. Wait	on gas	line connection			

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforations
9"	1710'	Surface	45	S. H.	Smls.	D	12¼"	512	
4½"	7332'	Surface	9.5-10.5	New	Smls.	K-55	7-7/8"	270	

PERFORATED CASING
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

4½" W.S.O. 6876'-6877' four .32" holes.
4½" 7235'-7245' four .32" holes per foot (Squeezed with 31 sacks cement)
4½" 7235'-7245' two .32" holes per foot.
4½" 7245'-7250' four .32" holes per foot.

Was the well directionally drilled? Δ OSP Electrical Log Depths Jacobs mud log, 6000-7460'
Welex I-ES 1730'-7457';
Sonic 5500'-7457'. (Attach Copy of Log)

FORM 103

SUBMIT IN DUPLICATE

△ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. Silver Creek #27X-29, Sec. 29, T. 14S, R. 13E., M. D. B. & M.

Date July 23, 1973, 19 Signed M. J. Frasch
M. J. Frasch

P. O. Box 52, Bakersfield, Ca. 93302 (805) 831-7461 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date 1972	DEPTH	REMARKS
12-7	714'	Gary Drilling, Contractor, spudded in 7:00 A.M. with 12¼" bit on 4½" R.I.F. drill pipe, using fresh water gel mud.
12-8	1710'	Drilled 12¼" hole. Run 9" casing.
12-9	1710'	Cemented 60 joints used 9" A.P.I., 45#, Grade D, 8 Vee thread, range 2, seamless casing, including guide shoe at 1710' with 362 sacks Class G cement premixed with 8% gel followed by 150 sacks Class G cement treated with 3% $CaCl_2$. Mixing time: 35 minutes. Displaced with 568 cu. ft. mud using one top rubber plug in 15 minutes. Plug did not seat. Equalized 25 sacks Class G cement premixed with 3% $CaCl_2$ through open end 1" pipe hung in annulus. C. I. P. 3:30 A.M., B-J cementers. Stood 6½ hours. Landed 9" casing, installed casing head and B.P.O.E. Tested to 1500 p.s.i.
12-10	1724'	Located top of hard cement at 753' using 7-7/8" bit and drilled out cement to 1700'. Retested B.P.O.E. to 1500 p.s.i. for 15 minutes and drilled out shoe.
12-16	6117'	Jacobs mud logging service on at 6000'. Drilling 7-7/8" hole.
12-20	6459;	Drilled 7-7/8" hole to 7460'. Welex recorded I-ES log 7457'-1730', and sonic log 7457'-5500'. Took 27 sidewall cores. Ran in 7-7/8" bit and conditioned mud 6 hours.
12-21	7460'	Laid down 4½" drill pipe. Ran 139 joints new 4½" A.P.I. 9.5 and 10.5#, K-55, 8 round S.T.&C., NKK, range 3 seamless casing to 7332' including B & W open guide shoe with B & W float collar at 7290'.
12-22	7460' Float 7290'	B-J cemented 4½" casing at 7332' with 135 sacks Class G cement premixed with 135 sacks Diamix A, 117# slurry. Mixing time 25 minutes. Displaced cement with 677 cu. ft. fresh water in 35 minutes, using one top rubber plug. Bumped plug with 1200 p.s.i. Float would not hold. Re-bumped plug at 1200 p.s.i., end shut-in at head. Preceded cement with 500 gallons mud sweep. Cement in place 1:50 A.M. Crews off for holiday.

FORM 103

SUBMIT IN DUPLICATE

Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. Silver Creek #27X-29, Sec. 29, T. 14S, R. 13E, M. D. B. & M.

Date ....., 19..... Signed .....

..... Title .....
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date 1972	DEPTH	REMARKS
12-27	7460' Plug 7276'	Landed 4½" casing and installed B.P.O.E. Made up and ran 2-3/8" E.U.E., used 4.6#, 8 rd. thread tubing with 4½" casing scraper to 7276'. Changed over from fresh water to 72# salt water. Tested B.P.O.E. to 1500 p.s.i. for 15 minutes. O.K.
12-28	"	Go-International Neutron log and collar locator stopped 7256'. Recorded 7256'-6800'. Perforated four .32" holes 6876'-6877' for W.S.O.
12-29	"	Set Howco packer 6848' with tail to 6861' using 2-3/8" E.U.E. tubing and 500' fresh water cushion. Tool with ½" bean, open one hour. Puff blow with intermittent light blows remainder of test. Recovered net rise of 270' gassy fluid. I.S.I.P. 3075 p.s.i., I.F.P. 430 p.s.i., F.F.P. 586 p.s.i., F.S.I.P. 3075 p.s.i., W.S.O. approved by E. V. Kaarlela of Division of Oil and Gas.
12-30	"	Go-International 3-1/8" O.D., DML, 10 gram jet gun perforated four .32" holes per foot, 7235-7245'. Hung 2-3/8" E.U.E., 6.4#, open-end tubing at 7194' with Baker AD-1 packer set at 7164'. Installed Xmas tree and blow line. Swabbed well in. Shut in at midnight.
12-31	"	Blew well 4 hours. Water sample tested 594 grains per gallon. Contractor released. Well shut in.
1973 2-5	"	Opened casing with packer at 7164' for 8 hours with initial pressure 450 p.s.i. Pressure bled off immediately with very light blow flammable gas balance of test. Shut in.
3-13	7460' Plug 7276'	Pyramid Oil Well Service, contractor, tested W.S.O. holes 6876'-6877' to 1750 p.s.i. on annulus with packer set at 7164'. No drop in pressure, W.S.O. O.K. Displaced 10 barrels salt water into formation through perforations 7235'-7245'. Spudded packer to break seal. Pulled tubing and found 2/3 packer rubber missing.

FORM 103 SUBMIT IN DUPLICATE △ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. Silver Creek #27X-29, Sec. 29, T. 14S, R. 13E, M. D. B. & M.

Date ....., 19..... Signed .....

..... Title .....
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date 1973	DEPTH	REMARKS
3-14	7460' Plug 7285'	Located top of fill in 4½" casing at 7247' with 3-7/8" bit on 2-3/8" tubing and cleaned out to 7285'. No packer rubber recovered. Conditioned salt water to 72 lbs. per cubic foot.
3-15	"	Set Howco packer at 7260'. Pressure tested 4½" casing to 2000 p.s.i. Dropped 200 p.s.i. in 10 minutes. Repressured to 2500 p.s.i. Pressure declined 700 p.s.i. in 5 minutes. Reset Howco packer 7128' and checked break down pressure on perforation 7235'-7245' at 4 cubic feet per minute and 2450 p.s.i. Displaced 35 sacks Class G cement (40 cu. ft.) at 2400 p.s.i. increasing to 2950 p.s.i. last 10 cu. ft. cement. Held final pressure 2950 p.s.i. for 10 minutes with estimated 31 sacks to formation. Released packer; pulled up 361' and reversed out through tubing. Cement in place 1:45 P.M.
3-16	"	Stood cemented 10 hours. Located top cement inside 4½" casing at 7156' using 3-7/8" bit on 2-3/8" tubing. Cleaned out firm to hard cement to 7245', then stringers of cement to 7285'.
3-17	7460' Plug 7286'	Could not clean out below 7286' due to packer rubber and tubing torquing to a stop.
3-18	"	Circulated hole clean at 7286'. Bit missing 3 cones. Ran 3-7/8" bit and casing scraper to 1800'. Crew off.
3-20	7460' Plug 7280'	Ran 3-7/8" bit and casing scraper to 7286'. Circulated hole clean at 7286'. Mixed 38 sacks $NaCl_2$ with 3% KCL in 60 barrels water and displaced to bottom for cement bond log. Go-International logged cement bond log with seismic spectrum from 7286' to 6500', and set 4½" casing bridge plug 7280'. Go-International perforated 4½" casing 7245'-7250' with four .32 holes per foot and 7235'-7245' with two .32 holes per foot, using 3-1/8" O.D., 10 gram DML jet gun. Hung 119 joints 2-3/8" O.D., 4.6# EUE 8 rd. thread open end tubing at 7250'. Installed Xmas tree.

FORM 103 SUBMIT IN DUPLICATE △ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. Silver Creek #27X-29, Sec. 29, T. 14S, R. 13E, M.D. B. & M.

Date ....., 19..... Signed .....

..... Title .....
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date 1973	DEPTH	REMARKS
3-21	"	Swabbed well 5 hours. Fluid level 4500'. Shut in.
3-22	"	Casing pressure 40 p.s.i. at 8:00 A.M. Fluid level 4100'. Shut in. Released crew.
3-26	"	Casing pressure 2000 p.s.i. at 8:00 A.M. Fluid level in tubing 100'. Swabbed fluid level to 4000' with casing pressure 1420 p.s.i., well blew in. Blew well 3 hours with tubing pressure dropping from 1100 p.s.i. to 80 p.s.i. Shut in.
3-27	"	Tubing pressure 1500 p.s.i. at 8:00 A.M. Blew well down in 1½ hours. Killed well with salt water. Howco pumped in 200 gallons 15% HCL, followed by 400 gallons 12% HCL plus 3% H.F., then 400 gallons 3% KCL water. Displaced with salt water to top of perforations and shut in casing valve. Pumped acid-mix to formation at pressures of 2000-3000 p.s.i. with no breakdown in 4 hours, 15 minutes. Total displacement to formation 170 gallons 15% HCL and 70 gallons 12% HCL plus 3% H.F. Released pressure with 5 barrels return. Net to formation 1 barrel. Reversed out excess acid-mix to sump. Closed casing valve and swabbed fluid level to 1800' in 2 hours. Crew off.
3-28	"	Casing pressure 175 p.s.i. at 8:00 P.M. Swabbed fluid to 4500'. No blow or pressure build-up on casing. Crew off.
3-30	"	Casing pressure 1600 p.s.i. at 8:00 A.M. Swabbed fluid level to 4000' and well blowing gas. Casing pressure dropping at rate of 200 p.s.i. every 15 minutes. Contractor released.
4-24	"	PACIFIC GAS & ELECTRIC BACK PRESSURE TEST:

Bean	Casing Pressure	Tubing Pressure	MCF/Day	Hrs./Min.	Remarks
S.I.	2522	2008	--	--	I.S.I.P.
3/16	640	457	366	01:15	Loading w/condensate.

(continued)

FORM 103

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

△ OSP

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. // Silver Creek // #27X-29, Sec. 29, T. 14S, R. 13E, M. D. B. & M.

Date ____, 19____ Signed ____

(Address) (Telephone Number) Title ____
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date
1973
4-24

Bean	Casing Pressure	Tubing Pressure	Rate MCF/Day	Hrs./Min.	Remarks
1/4	540	405	573	03:40	Dodiac 1#/min. when S.I.
S.I.	2470	550	--	0:10	
S.I.	2470	2226	--	18:37	F.S.I.P.

Shut in. Wait on line connection to P. G. & E.

7302.32-73

PACIFIC GAS AND ELECTRIC CO.
DEPT. OF ENGINEERING RESEARCH

ANALYSIS OF GAS SAMPLE

SAMPLE IDENTIFICATION:
CHENEY RANCH FIELD, SAN JOAQUIN DIVISION
BENDER 97290

LAB. NO. 73-796

DATE SAMPLED
JUNE 13 1973

DATE ANALYZED
JUNE 29 1973

GAS PHASE COMPONENT	VOLUME FRACTION	CALCULATED SPEC. GRAV.	CALCULATED BTU/CU. FT.
CARBON DIOXIDE	0.0046	0.6833	1180.2
NITROGEN	0.0144		
METHANE	0.8537		
ETHANE	0.0568		
PROPANE	0.04		
ISO-BUTANE	0.0112		
N-BUTANE	0.0112		
ISO-PENTANE	0.0042		
N-PENTANE	0.0024		
HEXANES	0.0015		
TOTAL	1.0000		

FORM 103

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Δ OSP

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. Silver Creek #27X-29, Sec. 29, T. 14S, R. 13E, M. D. B. & M.

Date ....., 19..... Signed .....

(Address) (Telephone Number) Title .....
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date

Bit Record

Bit No.	Size	Make	From	To	Feet	Hours	Remarks
1	12¼"	Reed T3AJ	0'	1021'	1021'	16-3/4	Retip
2	"	Hughes OSC	1021'	1710'	689'	8-3/4	Retip
3	7-7/8"	Smith DTJ	753'	1160'	407'	7	D. Ø. Cement
4	7-7/8"	Varel Y3AJ	1160'	1992'	832'	13	Cement & Formation
5	7-7/8"	Varel Y3AJ	1992'	2502'	510'	11½	
6	7-7/8"	Varel Y3AJ	2502'	3064'	562'	10½	
7	7-7/8"	Varel 3A	3064'	3566'	502'	10	
8	7-7/8"	Varel V3SJ	3566'	4535'	969'	15-3/4	
9	7-7/8"	Varel V3SJ	4535'	5071'	536'	11	
10	7-7/8"	Varel V3AJ	5071'	5334'	263'	12¼"	
11	7-7/8"	Varel V3AJ	5334'	5663'	329'	12¼"	
12	7-7/8"	Varel V3AJ	5663'	6000'	337'	16-3/4"	
13	7-7/8"	Varel V3SJ	6000'	6305'	305'	11½	
14	7-7/8"	Varel V3SJ	6305'	6851'	546'	18¼	
15	7-7/8"	Varel V3SJ	6851'	7146'	295'	15	
16	7-7/8"	Varel V3SJ	7146'	7460'	314'	13½	

DESCRIPTION OF SIDEWALL SAMPLES

SILVER CREEK #27X-29

Depth	Description
6259'	Shale, dark brown, clayey, NOSCF.
6305'	Sand, light grey, soft, Kaolinitic, NOSCF.
6555'	Sand as above. NOSCF. Some embedded claystone.
6567'	Sand as above, clayey. Faint petroleum odor. Faint cut. Scattered yellow white fluorescence.
6752'	Sand, medium to light grey. Medium to fine grained, abundant interstitial Kaolin. Fair odor, trace milky cut, NSF.
6757'	Sand as above, trace petroleum odor. NSCF.
6784'	Shale. Dark brown, massive, silty, common crushed forams, trace petroleum odor.
6899'	Sand, medium grey, medium to fine grained, abundant interstitial Kaolin. Trace petroleum odor, NSCF.
6905'	Sand, medium dark grey, fine grained, Kaolinitic, NOSCF.
6924'	Sand, light grey, fined grained, soft, friable, Kaolinitic, NOSCF.
6935'	Sand as above, faint petroleum odor, MFS.
6971'	Sand, medium grey, soft, friable, Kaolinitic, good petroleum odor, Fair milky cut, NFS.
6988'	Sand as at 6971', except slightly more Kaolinitic, good odor, milky cut, NFS.
6997'	Sand as above, good petroleum odor, faint light yellow fluorescence, fair milky cut, no stain.
7032'	Sand, dark grey, fine to medium grained, Kaolinitic, NOSCF.
7075'	Sand as at 7032'. NOSCF.
7135'	Sand, medium grey with shale partings, Kaolinitic, NOSCF.
7165'	Sand as above. Faint petroleum odor, no fluorescenee. No cut.
7175'	Sand, medium grey, medium to fine grained, less Kaolinitic than sands above. Trace petroleum odor. NSFC.
7185'	Sand as at 7175'. Slightly more Kaolinitic. Fair petroleum odor, NSFC.

DESCRIPTION OF SIDEWALL SAMPLES

"SILVER CREEK" #27X-29

Depth	Description
7218'	Sand as last described, faint petroleum odor, no fluorescence or cut.
7244'	Sand as above, faint odor, no fluorescence, faint milky cut.
7252'	Sand as above, faint petroleum odor, trace milky cut, no cut. Abundant interstitial material.
7265'	Sand as above, good petroleum odor, faint milky cut, faint yellow fluorescence.
7271'	Sand as above, fair petroleum odor, NSFC.
7315'	Sand as above, abundant interstitial material. Faint petroleum odor. NSCF.

FORM 103

SUBMIT IN DUPLICATE

△ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR E. A. Bender, Operator FIELD Cheney Ranch

Well No. Silver Creek #27X-29, Sec. 29, T. 14S, R. 13E, M. D. B. & M.

Date ....., 19..... Signed .....

..... Title .....
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date

Single Shot Deviation Record

Depth	Angle	Depth	Angle
990'	0° 30'	5334'	3° 00'
1021'	0° 30'	5648'	2° 15'
1715'	0° 45'	6000'	3° 00'
2502'	0° 15'	6305'	3° 15'
3064'	0° 45'	6851'	4° 15'
3566'	0° 45'	7146'	4° 15'
4535'	1° 00'	7460'	4° 15'
5071'	1° 30'		

JUN 1 1973

W.11 27x

DIVISION OF OIL AND GAS
RECEIVED
JUN 21 1973
WOODLAND, CALIFORNIA

FORM 109

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

No. T 573-1

Mr. Merlin J. Frasch, Agent
E. A. BENDER, OPERATOR
P. O. Box 52
Bakersfield, CA 93302

Coalinga Calif.
January 2, 1973

DEAR SIR: (029-20726)

Operations at well No. "Silver Creek" 27X, Sec. 29, T. 14 S., R. 13 E., M. D. B & M. Cheney Ranch Gas Field, in Fresno County, were witnessed on December 29, 1972. Mr. E. V. Kearlola, representative of the supervisor was present from 0900 to 1200. There were also present E. A. Bender, Operator, and D. Ware, Foreman (Gary Drilling Co.)

Present condition of well: 9" cem. 1710'; 4½" cem. 7332', four holes 6875' W.S.O. T.D. 7332', plugged with cement 7332'-7290'.

The operations were performed for the purpose of testing the 4½" water shut-off by a formation tester.

Mr. reported:

THE 4½" SHUT-OFF AT 6875' IS APPROVED.

EVK:ef
cc: Company

JOHN F. MATTHEWS, JR.
State Oil and Gas Supervisor

By C. H. Corum Deputy

59471-705 1-72 20M ② OSP

Halliburton Formation Tester Water-Shut-Off Test

Operator E. A. Bender, Opr.

Well No. "Silver Creek" 27X (019-20726) Sec. 29, T. 14S, R. 13E, M.D. B&M

Field Cheney Ranch Gas, County Fresno was tested for water shut-off on Dec 16, 1972, Mr. E. V. Knutelo, representative of the supervisor was present from 0900 to 1200. There were also present E. A. Bender, Opr., B. Ware, foreman (Easy Drilling Co.)

Casing record of well: 9" cem. 1710'; 4½" cem. 7332'; four holes 6875' w.s.o., T.D. 7332'; plugged with cem. 7332' - 7290'

The operations were performed for the purpose of testing the 4½" water shut-off by a formation tester.

☒ The 4½" shut-off at 6876' is approved.

☐ The operations as witnessed and reported are approved and indicate that no fluid has access to the well from the annulus between _____" and _____" casings.

☐ The operations as witnessed and reported are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

Hole size: _____" fr. _____' to _____', _____" to _____' & _____" to _____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
4½"	9.5-10.5	Surface	7332		Pump.	*	5768 ±	7290'			

* 135 Class G premixed with 135 sx Diamix A ▲ location of bottom collar

Depth or interval tested 6876 - 6877 (4-½" holes)

The hole fluid was bailed to _____' at _____ on _____ 19___.

The hole was open to _____' for test.

Packer(s) 6848' & _____' Tail 6861' Bean size ½" Cushion 500'

IHP _____ IFP _____ FFP _____ FHP _____

Blow Light to medium blow thru out test

Open for test 1 Hr. _____ min. Fluid entry 1 barrel muddy water (200')

Date _____ 19___ Time _____ Guage/meter reading _____ Pump depth _____' Engr. _____

Date _____ 19___ Time _____ Guage/meter reading _____ Engr. _____

Fluid level _____' surveyed on _____ 19___, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

RA/Spinner (Temperature) survey run at _____ B/D & _____ psi on _____ 19___, fluid confined below _____' (Packer depth _____')

* The formation tester parted from the tubing while tripping out. The tester was later recovered and the chart showed no appreciable entry. IHP, IFP, FFP and FHP readings were not obtained

Form 35 Rev. 5/72

FORM 109

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

No. T 572-276

Mr. Merlin J. Fraech, Agent
E. A. BENDER, OPERATOR
P O Box 52
Bakersfield, CA 93302

Coalinga, Calif.
December 12, 1972

DEAR SIR: (019-20726)

Operations at well No. "Silver Creek" 27X, Sec. 29, T. 14S, R. 13E, M D B & M. Cheney Ranch Gas Field, in Fresno County, were witnessed on December 11, 1972. Mr. E. V. Kaarlela, representative of the supervisor was present from 0900 to 1000. There were also present B. Ware, Foreman (Gary Drilling Co.)

Present condition of well: 9" cem. 1710', T.D. 2000' (drilling)

The operations were performed for the purpose of inspecting the blowout-prevention equipment and installation.

Mr. _____ reported:

THE BLOWOUT-PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

EVK:fd
cc: Company

JOHN F. MATTHEWS, JR.
State Oil and Gas Supervisor

By C. H. Corwin Deputy

59471-705 1-72 20M ② OSP

BOPE Memo

Operator E.A. Bender, Opr.
Well No. "Silver Creek" 27X (019-20786) Sec. 29, T. 14, R. 13, M.D. B&M
Field Cheney Ranch Gas, County Fresno. On Dec 11, 1972
Mr. E.V. Kaarid, representative of the supervisor was present from 0900 to 1000. There was also present B. Ware, Foreman (Gary Drilling Co.)
Casing record of well: 9" cem 1710', T.D. 2000' (drilling)

The operations were performed for the purpose of ~~testing~~ (inspecting) the blowout-prevention equipment and installation.

/X/ The blowout-prevention equipment and installation are ~~(not)~~ approved.

Hole size: 12 1/4" fr. Surface' to 1710', 7 7/8" to Drilling' & ____" to ____'

X	Installed Casing (BOPE Anchor)				Cemented			Tested Top of Fill		Date	Psi	Time (Min.)
	Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
X	9"	45	Surface	1710	12/8/72	Pump 1710	*	Returns	753			

*362 Class G 8% Gel followed by 150 sx 3% Gel 1:1 pos.

Blowout Preventers

X	Types Enumerated Top to Bottom		Mfg.-Model	Overhaul Date	Flange Bolt	Clamp Size	Psi Rating			
X	Annular	1	Hydr. GK 10"-900		✓		5000	12/10/72	1500	15 min
X	Pipe rams	2	Shaffer 10"-900				"	"	"	"
X	Blind rams	3	" " "				"	12/9/72	"	5 min

Accessories

X	Type	Psi Rating	Size or Capacity
X	Accumulator	1500	80 gal
X	Nitrogen bottle	2200	3 bottles 22 each
X	Mud pump	2500	
X	Standpipe gauge	3000	N.A.
X	Check valve	5000	2"
	Inside BOP		
X	Kelly cock	5000	N.A.
X	Spool	5000	10"-900

X	Type	Psi Rating	Size or Capacity	
X	Choke line	5000	2"	} Same line
X	Fill-up line	5000		
X	Kill line	5000	2"	
X	Control lines	3000	1"	
	Rotating head	N.A.	N.A.	
	Banjo box & blow line	N.A.	N.A.	
	Muffler on blowline	N.A.	N.A.	
	Pressure relief valve			

Drilling Fluid Program

Type	Weight	Water Loss	Cake	Viscosity	Storage
Native Solids			2/32"	50-70	140 bbl

BOPE Control Stations	
Remote:	Drillers Sta.
Remote:	100 ft from well hole
Manual:	*

* will have manuals

Monitoring Devices	Alarm Yes	Alarm No
Calibrated mud pit		X
Mud pit level indicator		X
Gas detector		X
Continuous (mud densimeter or) (temperature recorder)		

Form 36 Rev. 5/72

FORM 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 572-296

Mr. Merlin J. Frasch, Agent
E. A. BENDER, OPERATOR
P. O. Box 52
Bakersfield, CA 93302

Coalinga Calif.
December 4, 1972

DEAR SIR:

(019-20726)

Your proposal to drill Well No. "Silver Creek" 27X, Section 29, T. 14S., R. 13E., M.D. B. & M., Cheney Ranch Gas Field, Fresno County, dated 11-30-72, received 12-4-72, has been examined in conjunction with records filed in this office.

DECISION: THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The 9" surface casing shall be cemented with sufficient cement to fill back of this casing from the shoe to the ground surface.
2. Mud fluid of sufficient weight and proper consistency to prevent blowouts shall be used in drilling, and the column of mud fluid shall be maintained to the surface at all times, particularly while pulling the drill pipe.
3. Adequate blowout-prevention equipment shall be installed, consisting in part of power-operated equipment capable of closing in the well with the pipe either in or out of the hole. Power-operated controls shall be situated both on the derrick floor and at a remote location. For this well, minimum equipment shall consist of an annular preventer and two ram-type preventers, one of which is a complete shutoff and the other is to close around the drill pipe.
4. This Division shall be consulted regarding the cementing of the 5½" casing before running it into the hole.
5. This Division shall be notified to witness:
   a. a pressure test of the blowout-prevention equipment on the 9" casing string prior to drilling below the shoe of the casing.
   b. a test of the water shut-off through four shot perforations immediately above the objective sand, prior to perforating the casing for production.

Note: Information on file in this office indicates that the base of the usable fresh water deposits should be encountered above a depth of 1700'.

Blanket Bond
RAR:ef
cc: Company

JOHN F. MATTHEWS, JR., State Oil and Gas Supervisor

By C H Corwin, Deputy

57625-705 11-71 35M OSP

FORM 105

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice and surety bond must be filed before drilling begins

019 20726

Bakersfield Calif. November 30 1972

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence drilling well No. Silver Creek 27X-29, Sec. 29, T. 14 S, R. 13 E, M. D.B. & M., Cheney Ranch Gas Field, Fresno County.

Legal description of mineral-right lease, consisting of 160 acres, is as follows: (Attach map or plat to scale)

Southwest Quarter, Section 29, Township 14 South, Range 13 East, M.D.B.&M.

Do mineral and surface leases coincide? Yes X No ____ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of Well: 660 feet North (Direction) along property section line and 990 feet East (Direction) at right angles to said line from the Southwest corner of property section

Elevation of ground above sea level 377 feet ____ datum.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table or Kelly Bushing) which is 11 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
9"	45#	D - Smls.	0'	1700'	Shoe to surface
5½"	15½#	K-55	0'	7500'	7500'±

Intended zone(s) of completion: Moreno Sands (Name) 7250'± (Depth, top and bottom) Estimated total depth 7500'

Reference to file of data: Map, 12/4/72 EVK

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address P. O. Box 52

Bakersfield, Calif. 93302

Telephone Number (805) 831-7461

E. A. Bender, Operator (Name of Operator)

By M. J. Frasch

M. J. Frasch, Agent

Type of Organization Individual (Corporation, Partnership, Individual, etc.)

F3 to locate API #, F2 to exit, Esc to undo

*

* Field
Cheney Ranch Gas

Operator
Cencal Drilling, Inc.

Sec	Twn	Rge	Well	Type	Status
29	14S	13E	"Silver Creek" 27X	DG	IDLE-5

API #
019-20726

Location
Fr SW cor 660 N 990 E

Elevation	BFW
377' KB	1600

Lambert N/S	Lambert E/W	Grid	Map status
			IDLE-GAS

Casing history
9" cem 1710'; 4-1/2" cem 7332', perf 6877'-6876'WSO, perf 7250'-7235' & 6984'-6966'. TD 7460'. Plugged w/cem 7332'-7286'.

F3 to locate API #, F2 to exit, Esc to undo