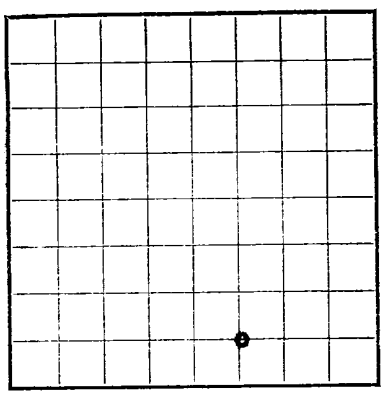
Bu[illegible] Bureau No. 42-R-355.3.
Ap[illegible] expires 12-31-55.

Form 9-330

U. S. LAND OFFICE ~~Hobbs~~ LC
SERIAL NUMBER 069051
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company McAlester Fuel Company Address Box 210 - Magnolia, Arkansas
Lessor or Tract New Mexico Federal Field North Gladiola State New Mexico
Well No. A-1 Sec. 6 T. 12S R. 38E Meridian NMPM County Lea
Location 660 ft. {N.} of S Line and 1980 ft. {W.} of E Line of Sec. 6 Elevation 3888'
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed L. L. Lang

Date 6/13/57 Title Chief Engineer

The summary on this page is for the condition of the well at above date.

Commenced drilling 3/4, 19 57 Finished drilling 6/4/57, 19

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 11,954 to 12,006 No. 4, from to
No. 2, from to No. 5, from to
No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from None observed to No. 3, from to
No. 2, from to No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13 3/8	48	8	H-40	302.83	Guide	None	-	-	Surface
9 5/8	36-40	8	J-55	4400.50	Guide	None	-	-	Intermediate Casing
5 1/2	17	8	J-55	12004.46	Float	None	11,974	12,001	Production

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13 3/8	319.6	350	Pump & Plug	9.7	Cement Circulated
9 5/8	4505	1975	Pump & Plug	11.1	Cement Circulated
5 1/2	12004	550	Pump & Plug	9.1	Top Cement 9585

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material - Length - Depth set -
Adapters—Material - Size -

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
		Jet Perforated 4 shots per ft.		6/8/57	11,974-12,001	DOTD 12,003

TOOLS USED

Rotary tools were used from Surface feet to 12,006 feet, and from feet to feet
Cable tools were used from - feet to - feet, and from feet to feet

DATES

, 19 Put to producing June 9, 19 57

The production for the first 24 hours was 442 barrels of fluid of which 99% was oil; -% emulsion; 0.5% water; and 0.5% sediment. Gravity, °Bé. ~~xxx~~ API 47.5

If gas well, cu. ft. per 24 hours - Gallons gasoline per 1,000 cu. ft. of gas -

Rock pressure, lbs. per sq. in. -

EMPLOYEES

S. L. Rech, Driller Marion Taylor, Driller
G. B. Crump, Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
Surface	95	95	Caliche
95	2,258	2,163	Red sands and shales
2,258	2,323	65	Anhydrite
2,323	2,998	675	Salt and anhydrite
2,998	3,043	45	Anhydrite
3,043	4,422	1,379	Sand, shale and anhydrite
4,422	5,867	1,445	Dolomite and lime
5,867	7,123	1,256	Lime, sand and dolomite
7,123	7,843	720	Dolomite and sand
7,843	9,072	1,229	Dolomite and red and green shale
9,072	10,100	1,028	Lime and shale
10,100	10,930	830	Lime
10,930	11,330	400	Shale and sand
11,330	11,878	548	Lime and chert
11,878	11,954	76	Shale
11,954	12,006	52	Dolomite

FROM— TO— TOTAL FEET FORMATION

[OVER] 16—43094-8

FORMATION RECORD—Continued

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
			Tops by Electrical Log
			Formation — **Depth**
			Top Rustler Anhydrite — 2258
			Top Salt (Salado) — 2323
			Top Tansill — 2998
			Top Yates — 3043
			Top San Andres — 4422
			Top Glorieta — 5867
			Top Bone Spring — 7123
			Top Abo — 7843
			Top Wolfcamp — 9072
			Top Strawn — 10930
			Top Mississippian — 11330
			Top Woodford — 11878
			Top Devonian — 11954

HISTORY OF OIL OR GAS WELL

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

T. D. 12,006'. 5½" 17# and 20# casing set at 12,004 with 450 sacks common, 6% gel, 28 sacks Signalite and 100 sacks slo-set Neat cement. Plug down 4:00 PM, 6/5/57. Ran Temperature Survey. Found top cement 9500'. Tested casing with 1,000 psi for 30 min. Test O. K. Perforated 11,974 to 12,001. Acidized with 1,000 gallons mud acid. Well completed 6/9/57.

Form 8-330

Cores:

Core #1 11,958'-11,973' Cut 15' Recovered 14.5'

C.T. 42, 47, 13, 14, 16, 13, 11, 11, 17, 22, 20, 24, 25, 33, 46,
barrel jammed on last foot

5.0' - Dolomite, white to buff, very finely crystalline, dense, highly fractured, no oil stain odor or taste, scattered particles of gilsonite on fracture faces, few traces of light yellow white fluorescence along fracture planes.

3.0' - Dolomite, light gray to buff, highly fractured, scattered pin point solution pores, good light brown oil stain in solution pores, good oil odor and taste, very slightly porous, low to no permeability, good bright golden yellow fluorescence where stained.

0.3' - Shale, black, siliceous, very hard.

1.5' - Dolomite, buff, highly fractured, few widely scattered pin point solution pores, heavy gilsonitic stain on fracture faces, good light brown oil stain in solution pores, slight oil odor and taste, very slightly porous, no permeability, bright light golden yellow fluorescence around solution pores.

1.5' - Shale, black, siliceous, fractured, very hard.

2.0' - Dolomite, gray, very finely crystalline, highly fractured, good light brown stain throughout, very slightly porous, low to no permeability, slight oil odor and taste, bright light golden yellow fluorescence along fracture faces.

0.5' - Shale, black, hard, slightly siliceous.

1.0' - Dolomite, white to buff, finely crystalline, fractured with inclusions of dark gray chert. Good light brown oil stain on fracture faces, very slightly porous, no permeability, slight oil odor and taste, bright golden yellow fluorescence along fracture faces, and spotted dull orange fluorescence in rock matrix, dull fluorescence appears to be mineral fluorescence.

Core #2 11,973'-11,991' Cut 18' Recovered 18'

C.T. 8, 12, 13, 11, 6, 9, 16, 8, 12, 5, 5, 4, 32, 20, 22, 23, 22, 34,
barrel jammed on last foot

3.0' - Dolomite, gray to buff, very finely crystalline, few widely scattered pin point solution pores, fractured, with inclusions of gray chert, very slightly porous, low to no permeability, good light brown oil stain in solution pores, good oil odor and taste, good bright yellow-white fluorescence in solution pores.

2.0' - Dolomite, buff, very finely crystalline, good vugular porosity, vugs range in size from pin point to 1/2" in diameter, good permeability, good light brown oil stain in solution pores, some gilsonitic stain in larger pores, good oil odor and taste, good bright yellow-white fluorescence where stained.

2.0' - Dolomite, white to buff, very finely crystalline, with inclusions of light gray chert, few widely scattered pin point solution pores, fractured, heavy gilsonitic stain on fracture faces, slight oil odor and taste, slightly porous, low to no permeability, good bright yellow-white fluorescence on fracture faces and in solution pores.

Core #2 Cont.

2.0' - Dolomite, as above, with slightly better pin point solution porosity, good light yellow-white fluorescence in solution pores and on fracture faces.

3.0' - Dolomite, white to buff, very finely crystalline, good honey-comb, vugular porosity, vugs range in size from pin point to 1/2" in diameter, some of larger vugs lined with light gray 1/4" rhombs of dolomite, heavy gilsonitic stain in larger solution pores, good light brown oil stain throughout, good oil odor and taste, good porosity and permeability, good bright yellow-white fluorescence throughout.

6.0' - Dolomite, white to buff, very finely crystalline, highly fractured, few widely scattered pin point solution pores, good light brown oil stain in solution pores and on fracture faces, some gilsonitic stain on fracture faces, good oil odor and taste, slightly porous, low permeability, good bright yellow-white fluorescence on fracture faces and in solution pores.

Core #3 11,991'-12,002' Cut 11' Recovered 11'

C.T. 23, 33, 41, 29, 30, 40, 23, 18, 36, 34, 54,
Barrel jammed on last foot

3.0' - Dolomite, buff, very finely crystalline, fractured, few widely scatted pin point solution pores, good light brown oil stain on fracture faces and in solution pores, slight oil odor and taste, very slightly porous, low to no permeability, good bright yellow-white fluorescence in solution pores and on fracture faces.

3.0' - Dolomite, buff to light gray, very finely crystalline highly fractured, good light brown oil stain on fracture faces, trace of gilsonitic stain, slight oil odor and taste, low to no porosity or permeability, good bright golden yellow fluorescence on fracture faces, (core badly crumbled).

3.0' - Dolomite, buff, very finely crystalline, highly fractured, styolitic, few widely scattered pin point solution pores, good light brown oil stain on fracture faces and in solution pores, slightly porous and permeable, good oil odor and taste, good bright yellow-white, fluorescence on fracture faces and in solution pores.

1.0' - Dolomite as above, very highly fractured, good bright golden-yellow fluorescence where stained (core badly crumbled).

1.0' - Dolomite, buff, very finely crystalline, highly fractured, scattered pin point solution pores, good light brown oil stain on fracture faces, heavy gilsonitic stain in solution pores, good oil odor and taste, slightly porous, low permeability, good bright yellow-white fluorescence on fracture faces and in solution pores.

Drill Stem Tests: DST #1 4965'-5200'

Chokes: 1" bottom, 1/4" top, no water cushion
Tool Open: 1 hour
Shut-In: 1 hour
Weak initial blow increasing to fair blow in 30 minutes held steady until end of test.

Recovery: 502' fresh drilling water, no show oil or gas

Initial Hydrostatic Head:	2260#
IBHFP	120#
FBHFP	290#
BHSIP (1 hour)	1740#
Final Hydrostatic Head:	2260#

DST #2 9574'-9614'

Chokes: 5/8" bottom, 1" top, no water cushion
Tool Open: 1 hour
Shut-In: 20 minutes
Tool opened with no blow, left tool open for 40 minutes with no blow, by-passed tool, left open additional 20 minutes with no blow.

Recovery: 90' drilling mud with no show

Initial Hydrostatic Head:	4840#	
IBHFP	50#	
FBHFP	70#	
BHSIP (20 minutes)	2160#	still increasing
Final Hydrostatic Head:	4840#	
Bottom Hole Temp.	196°	

Surveys Made: Schlumberger Electrical Log
Schlumberger Gamma Ray Log
Schlumberger Micrologging

Possible Pay Behind Casing: San Andres by Microlog 5143'-5152', 5155'-5157', 5166'-5167.5', 5169'-5171', 5189'-5200'
Wolfcamp Lime by Microlog 9534'-9593'