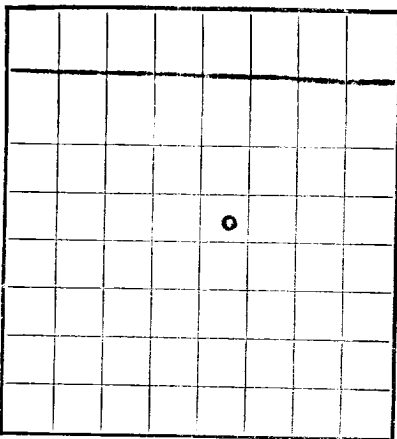


U. S. LAND OFFICE Santa Fe, N.M.

SERIAL NUMBER **LC 967656**

LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

AUG 23 1960

U. S. GEOLOGICAL SURVEY
HOBBBS, NEW MEXICO

LOG OF OIL OR GAS WELL

Company The Pure Oil Company Address P.O. Box 2532 - Hobbs, New Mexico
Lessor or Tract Federal "3" Field West Crossroads (Perm.) State New Mexico
Well No. 1 Sec. 31 T. 9-S R. 36-E Meridian NMPM County Lea
Location 2310 ft. S. of N. Line and 2173 ft. W. of E. Line of Section 31 Elevation 4065' SCF
(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 H. G. League

Date August 22, 1960 Title District Superintendent

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

Commenced drilling May 20, 1960 Finished drilling July 18, 1960

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 11,996' to 12,070' 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 _____ 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		Purpose
							From—	To—	
11-3/4"	42#	8 RT	Natl.	327'	Larkin Guide Shoe				
8-5/8"	32# 21#	8 RT	Natl.	4101'	Larkin Guide Shoe				
5-1/2"	20# 17#	8 RT - Line	Natl.	12059'	Saker Differential Guide Shoe		12017	12036 w/ 76 shots.	

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
11-3/4"	327'	450	Pump & Plug		
8-5/8"	4101'	1101	Pump & Plug		
5-1/2"	12059'	275 *	2-Stage DV Tool		
* 1st Stage 75 sacks cement. 2nd Stage 200 sacks cement w/ 16 Gel & 50-50 Pozmix.					

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

TOOLS USED

Rotary tools were used from Surface feet to 12,070 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

August 22, 1960 Put to producing August 2, 1960The production for the first 24 hours was 35 barrels of fluid of which 100 % was oil; _____ % emulsion; _____ % water; and _____ % sediment.Gravity, °Bé. 12.4 Deg. @ 60 Deg.

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

Rock pressure, lbs. per sq. in. _____ * Based on 12 hours flowing test, 11/64" choke, 267 1/2 bbls. oil, 54 CF/B.

EMPLOYEES

Harry L. Forzer, Driller L. A. Smith, Driller
Earl A. Strick, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	332	332	Caliche & Redbeds
332	1338	1056	Redbeds
1338	1970	532	Redbeds & Anhydrite
1970	2100	130	Salt & Anhydrite
2100	2362	262	Anhydrite
2362	3518	1156	Salt & Anhydrite
3518	3695	177	Anhydrite & Gypsum
3695	3792	97	Anhydrite
3792	4046	254	Anhydrite & Lime
4046	7670	3624	Lime
7670	8214	544	Lime & Shale
8214	8978	764	Lime
8978	9039	61	Lime & Chert
9039	9979	940	Lime
9979	10054	75	Lime & Shale
10054	10193	139	Lime
10193	10351	158	Lime & Chert
10351	10915	564	Lime
10915	11045	130	Lime & Chert
11045	11065	20	Lime & Sand
11065	11233	168	Lime
11233	11366	133	Lime & Sand
11366	11690	324	Lime & Chert
11690	11752	62	Lime
11752	11802	50	Lime & Chert
11802	12070	268	Lime

(OVER)

FROM-	TO-	TOTAL FEET	FORMATION
12070	12057	13	Cement - PS Total Depth
			2153' Anhydrite
			2793' Yates
			4052' San Andres
			5516' Glorieta
			5173' Clearfork
			5907' Tubb
			7583' Abo
			8917' Wolfcamp
			9386' Burnham
			9550' Cisco
			10955' Band
			11352' Mississippian
			11922' Woodford
			11996' Devonian

HISTORY OF OIL OR GAS WELL

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, 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. Deviation tests were taken at various intervals from 150' to 12010'. At no time did hole deviate over 4 degrees.

CORES: #1 From 12010' to 12040'. Recovered 29-1/2' as follows: 10' brown dense line with chert inclusions, 5' brown dense dolomite with scattered chert inclusions, 7' dolomite with scattered oil bleed along tight fractures and 7-1/2' white crystalline fractured dolomite with scattered oil bleed along fracture. #2 From 12040' to 12060'. Recovered 20' as follows: 8' light gray white dense fine crystalline fractured dolomite, scattered anhydrite and chert inclusions, very light oil bleed along fractures, 12' dolomite same as above with thin point to 1/8" scattered waxy porosity, good oil bleed along fractures.

#3 From 12060' to 12070'. Recovered 10' white finely crystalline, very highly fractured dolomite with several anhydrite bands 2" to 3" thick and abundant anhydrite, top 3-1/2' had good thin point to 1/4" anhydrite porosity, oil stain, good oil bleed.

Bore #1 From 12020' to 12,060', Devonian, 5/8" x 1" chokes, no water blanket, lost open 3 hours, had full air flow. Gas to surface in 2 hours 55 minutes. Recovered 96 barrels oil, 10 barrels heavily oil and gas out mud and 45 gallons of brackish water.

DST #2 From 12059' to 12070'. Packers failed - unable to get test.