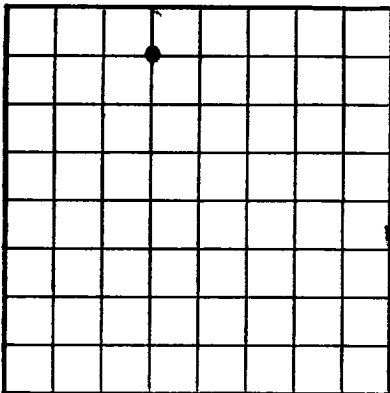


Form 9-390

U. S. LAND OFFICE Santa Fe, N.M.
SERIAL NUMBER LC 062084
LEASE OR PERMIT TO PROSPECT _____



UNITED STATES

DEC 12 1960

DEC 12 1968 DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

RECEIVED

DEC 19 1960

O. C. C.
ESTIA, OFFICE

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company The Pure Oil Company Address P.O. Box 2532 - Hobbs, New Mexico
 Lessor or Tract Federal "E" Field Culwin (Queen) State New Mexico
 Well No. 2 Sec. 31 T. 18S R. 31E Meridian NMPM County Eddy
 Location 660 ft. S of N Line and 1960 ft. E of W Line of Section 31 Elevation 3550' SCF
 (Derivak 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.

Date December 9, 1960 Signed H. G. Teague
Title Dist. Supt.

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

Commenced drilling September 29, 1960 Finished drilling November 3, 1960

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 3593' to 3605' 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 to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

[illegible]

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	816'	150	Pump & Plug		
5-1/2"	3649'	250	Pump & Plug		

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 _____ feet to _____ feet, and from _____ feet to _____ feet
Cable tools were used from Surface feet to 3650 feet, and from _____ feet to _____ feet

DATES

December 2, 1960 Put to producing December 3, 1960

The production for the first 24 hours was 103 barrels of fluid of which 24 % was oil; - % emulsion; 76 % water; and - % sediment. Gravity, °Bé. 30.4 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.

EMPLOYEES

----- **R. H. Plummer** -----, Driller ----- **G. H. Harris** -----, Driller
----- **Vern Miller** -----, Driller -----, Driller

FORMATION RECORD

FROM-	TO-	TOTAL FEET	FORMATION
0	20	20	Caliche
20	30	10	Red Shale
30	40	10	Red Sand
40	508	468	Red Shale
508	655	147	Anhydrite
655	660	5	Sand
660	730	70	Anhydrite
730	800	70	Shale & Shells
800	1875	1075	Salt
1875	2425	550	Anhydrite
2425	2470	45	Anhydrite & Sand
2470	2515	45	Anhydrite & Lime
2515	2620	105	Dolomite
2620	3166	546	Lime
3166	3200	34	Sand
3200	3298	98	Lime
3298	3305	7	Sand
3305	3407	102	Lime
3407	3578	171	Sand & Lime
3578	3605	27	Sand
3605	3650	45	Lime
3650	3621	- 29	Cement - PB Total Depth

FROM-	TO-	TOTAL FEET	FORMATION
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GEOLOGICAL TOPS:
 Master Anhydrite 505' (+3045')
 Yates 2070' (+1480')
 Seven Rivers Sand 2590' (+ 960')
 Queen Sand 3160' (+ 390')
 Pennose Sand 3397' (+ 153')
 Basal Queen Sand 3593' (- 43')
 Grayburg 3605' (- 55')

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 "disconnected" 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. Drilled with cable tools to 3650', total depth. Set 8-5/8" OD 21# 8 RT casing at 816' and cemented with 150 sacks. Set 5-1/2" OD 15.5#, 17# & 20# 8 RT casing at 3621'. 3649' and cemented with 250 sacks, top cement plug inside 5-1/2" casing at 3621'. Top of cement outside 5-1/2" casing at 1850'. Perforated 5-1/2" OD casing from 3594' - 3604' with 4 bullet shots per foot. Treated Queen formation with 500 gallons mud acid, 20,000 gallons refined oil and 58,000# sand, maximum CP 2900#. Installed pumping equipment and pumped trace oil and salt water. Squenced Queen formation thru perforations with 33 barrels Viaguerre (100 sacks Lonstar Incon cement and 2 sacks Calcium Chloride), maximum IP 2600# - failed to shut off water. Recovered all lost and trace oil. MIOC Potential Test: Pumped 24 hours, 42" strokes, 13 SPM, 25 barrels oil and 78 barrels salt water.

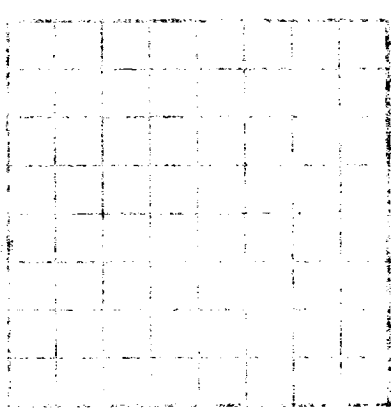
BALLER TESTS

Deviated with cable tools to 3650', total depth. Set 8-5/8" OD 21# 8 RT casing at 816' and cemented with 150 sacks. Set 5-1/2" OD 15.5#, 17# & 20# 8 RT casing at 3621'. 3649' and cemented with 250 sacks, top cement plug inside 5-1/2" casing at 3621'. Top of cement outside 5-1/2" casing at 1850'. Perforated 5-1/2" OD casing from 3594' - 3604' with 4 bullet shots per foot. Treated Queen formation with 500 gallons mud acid, 20,000 gallons refined oil and 58,000# sand, maximum CP 2900#. Installed pumping equipment and pumped trace oil and salt water. Squenced Queen formation thru perforations with 33 barrels Viaguerre (100 sacks Lonstar Incon cement and 2 sacks Calcium Chloride), maximum IP 2600# - failed to shut off water. Recovered all lost and trace oil. MIOC Potential Test: Pumped 24 hours, 42" strokes, 13 SPM, 25 barrels oil and 78 barrels salt water.

LENGTH OF TEST

DEPTH	2 Hours	RECOVERY
2620'	2	1.5 gallons free oil.
3173'	2	Trace of free oil.
3186'	1	Trace of free oil.
3419'	2	Trace of free oil.
3593'	2	2 gallons free oil, 38 gallons salt water.
3601'	2	9 gallons free oil, 35 gallons salt water.
3605'	2	18 gallons free oil, 30 gallons salt water.
3615'	2	24 gallons free oil, 43 gallons salt water.

Deviation tests were taken at various intervals between 1000' and total depth. At no time did hole deviate over 5 degrees.



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 DEPT. OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 WASHINGTON, D.C.
 MAY 19 1960