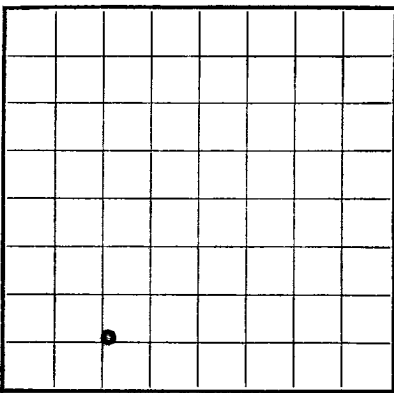




LOCATE WELL CORRECTLY

U. S. LAND OFFICE **New Mexico**
SERIAL NUMBER **019410**
LEASE OR PERMIT TO PROSPECT _____

UNITED STATES

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company **Pubco Petroleum Corporation** Address **Box 1419, Albuquerque, New Mexico**
Lessor or Tract **Bruington-Federal** Field **Basia** State **New Mexico**
Well No. **15-M** Sec. **15** T. **30N** R. **11W** Meridian **New Mexico** County **San Juan**
Location **1012** ft. **N.** of **2** Line and **1600** ft. **E.** of **W.** Line of **Section 15** Elevation **5832'**
(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.

Date **January 8, 1964** Signed **Handwritten Signature** Title **Assistant Geologist**

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

Commenced drilling **November 23, 1963** Finished drilling **December 12, 1963**

OIL OR GAS SANDS OR ZONES

No. 1, from **2234** to **2270** (G) No. 4, from **6796** to **6812** (G)
No. 2, from **6688** to **6678** (G) No. 5, from **6836** to **6848** (G)
No. 3, from **6738** to **6770** (G) No. 6, from **6850** to **6858** (G)

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—	
9-5/8	260	250							
5-1/2	6880	205							
HYPLOKA OF OH OK CYS MEAT									

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8	260	250	Circulated		
5-1/2	6880	205	Stages; Set DV tool @ 2389 & cem. with 175 ex & cure to surface.		

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
See Completion report on reverse side.						

TOOLS USED

Rotary tools were used from **surface** feet to **6881** feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

January 8, 19 **64** Put to producing **waiting on connection** 19____
The production for the first 24 hours was _____ barrels of fluid of which _____ % was oil; _____ % emulsion; _____ % water; and _____ % sediment. Gravity, °Bé. _____
If gas well, cu. ft. per 24 hours **3539 MCF** Gallons gasoline per 1,000 cu. ft. of gas _____
Rock pressure, lbs. per sq. in. **3/4" ck.** 1880 after **1 day shut in.**

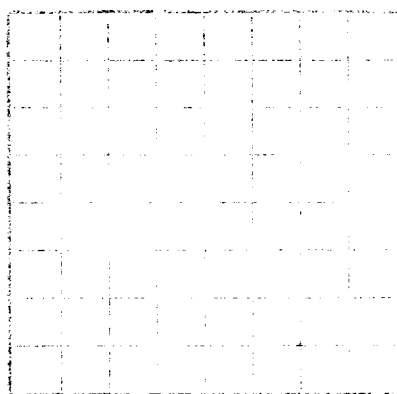
G. M. Benton, Driller **Richard Slaughter**, Driller
A. G. Miller, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
surface	942	942	Tertiary, Undiff.
942	1892	950	Kirtland Fm.
1892	2234	342	Fruitland Fm.
2234	2344	110	Pictured Cliffs Fm.
2344	3816	1472	Lewis Sh.
3816	4815	999	Nasaverde, Undiff.
4815	5802	987	Mancos Sh.
5802	6202	400	Gallup Fm.
6202	6549	347	Mancos Sh.
6549	6602	53	Greenhorn Ls.
6602	6738	136	Gramercy Sh.
6738	6881	143	Dakota Fm.

LOG OF OIL OR GAS WELL

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
UNITED STATES



Completed with 4 jets per foot, 6796-6812; 6830-40; bridge plug set at 6750, perforated w/4 jets/foot, 6738-70; bridge plug set at 6700; perforated w/4 jets/foot, 6660-62'. Tested to 3000'. Test OK.
Fractured direct stage w/30,000 psi water, 1750 J-III sticking agent, 336 gals. breakdown acid, 16,000 20-40 sand; fracked w/7476 gals. water, 12 CCL; formation broke at 2000'; average creating pressure 2800'; maximum creating pressure, 3200'; average injection rate 30 gpm; fracture 8.1 (18000) after 5 minutes, 1300'; formation averaged only 510 psi pressure and fracked. Fractured second stage w/80,010 gals. water, 12 CCL, 50,000 20-40 sand, 336 gals. breakdown acid, 4700 J-III sticking agent; formation broke at 1750'; average creating pressure 3100'; maximum creating pressure 3825'; average injection rate, 40 gpm; fracture 8.1 (18000) after 5 minutes, 1300'; formation averaged only 510 psi pressure and fracked. Fractured third stage w/40,152 gals. water, 336 gals. breakdown acid, 2200 J-III sticking agent, 20,000 20-40 sand; breakdown pressure 3200'; injection rate 30 gpm; fracture 8.1 (18000) after 5 minutes, 1300'; formation averaged only 510 psi pressure and fracked. Fractured with 8,100 gals. water, 12 CCL. The summary of this log for the completion of the well is above.

CASING RECORD

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 burning.

HISTORY OF OIL OR GAS WELL

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

MUDDING AND CEMENTING RECORD

Depth	Amount of mud	Amount of cement	Remarks
0-10			
10-20			
20-30			
30-40			
40-50			
50-60			
60-70			
70-80			
80-90			
90-100			

PLUGS AND ADAPTERS

Depth	Remarks
0-10	
10-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	

SPACING RECORD

Depth	Remarks
0-10	
10-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	

LOGS USED

Depth	Remarks
0-10	
10-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	

TESTS

Depth	Remarks
0-10	
10-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	

PRODUCTION RECORD

Depth	Remarks
0-10	
10-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

11-12-33, Daily.

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
0-10	10-20	10	Formation 1
10-20	20-30	20	Formation 2
20-30	30-40	30	Formation 3
30-40	40-50	40	Formation 4
40-50	50-60	50	Formation 5
50-60	60-70	60	Formation 6
60-70	70-80	70	Formation 7
70-80	80-90	80	Formation 8
80-90	90-100	90	Formation 9
90-100	100-110	100	Formation 10