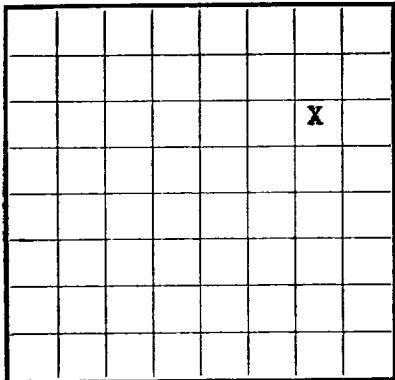


U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078576
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico
Lessor or Tract Howell Field Bianco State New Mexico
Well No. 4-K Sec. 17 T. 30N R. 8W Meridian NMPM County San Juan
Location 1600 ft. Rock of N. Line and 940 ft. Rock of E. Line of Section 17 Elevation 5867
(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 D.C. Johnston
Date December 5, 1955 Title Petroleum Engineer

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

Commenced drilling October 13, 1955 Finished drilling November 1, 1955

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from 2667 to 2748 G No. 4, from 4870 to 4920 G
No. 2, from 4365 to 4472 G No. 5, from _____ to _____
No. 3, from 4472 to 4870 G 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	
13 3/8	48	8 RD	J-55	161'	Howe				Surface
9 5/8	36	8 RD	J-55	2600'	Baker				Intermediate
7	26	8 RD	J-55	198'	Baker				Prod. Csg.
7	26	8 RD	J-55	4173'	Baker				Prod. Csg.
2	4.7	8 RD	J-55	4930'					Prod. Tbg.

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13 3/8	177'	250	Circulated		
9 5/8	2700	250	Single Stage		
7	4975	400	Single Stage		

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 Well History.				

TOOLS USED

Gas Drilled

Rotary tools were used from 0 feet to 2700 feet, and from 2700 feet to 4975 feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

November 6, 19 55 Put to producing _____, 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 5,995,000 Gallons gasoline per 1,000 cu. ft. of gas _____
Rock pressure, lbs. per sq. in. 1050

EMPLOYEES

_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	460	460	Tan cr-grn ss w/thin sh breaks.
460	1140	680	Variegated sh w/thin ss breaks.
1140	2007	867	Tan to gry cr-grn ss interbedded w/gry sh.
2007	2097	90	Ojo Alamo ss. White cr-grn s.
2097	2331	234	Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.
2331	2667	336	Fruitland form. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss.
2667	2748	81	Pictured Cliffs form. Gry, fine-grn, tight, varicolored soft ss.
2748	4365	1617	Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.
4365	4472	107	Cliff House ss. Gry, fine-grn, dense sil ss.
4472	4870	398	Manefee form. Gry, fine-grn s, carb sh & coal.
4870	4920	50	Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.
4920	4975 T.D.	55	Mancos formation. Gry carb sh.

