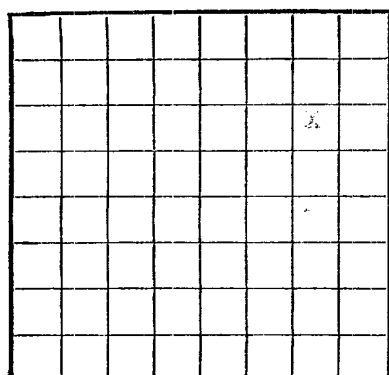


U. S. LAND OFFICE Santa FeSERIAL NUMBER 000213

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 Lincoln Unit Field No. Blanco State New Mexico
Well No. 13 Sec. 33 T. 2N R. 7E Meridian NM County Rio Arriba
Location 1800 ft. S. of N. Line and 900 ft. W. of E. Line of Section 33 Elevation 6077
(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 Original Signed EWELL N. WALSHDate February 5, 1957Title Petroleum Engineer

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

Commenced drilling 12-20-56, 19____ Finished drilling 12-27-56, 19____

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 3146 to 3231 (G) 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—	
5-8	36	4.50	J-55	123'	Howell				Surface
4-2	15.5	3.50	J-55	2942'	Howell				Prod. Csg.
4-2	20.3	3.50	Granda	3105'	Howell				Prod. Csg.

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
5-8	134'	100	Circulated		
4-2	2942'	150	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

TOOLS USED

Rotary tools were used from _____ feet to 252 feet, and from _____ feet to _____ feet

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

DATES

1-14-57, 19____ 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 6,200,000 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. 81

EMPLOYEES

_____, Driller _____, Driller

_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2300	2300	Tan to gry cr-gra ss interbedded w/ gry sh.
2300	2501	201	Ojo Alamo ss. White cr-gra s.
2501	2904	403	Kartland form. Gry sh interbedded w/ tight gry fine-gra ss.
2904	3146	242	Fruitland form. Gry carb sh, scattered coals coals and gry, tight, fine-gra ss.
3146	3231	85	Pictured Cliffs form. Gry, fine-gra, tight, varicolored soft ss.
3231	3252	21	Lewis formation. Gry to white dense sh w/ silty to shaly ss breaks.



FORMATION RECORD--Continued[illegible]

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, 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.

1-12-57 G.O.T.D. 3236". Perf. with 4 jet ft. Int. 3150-58, 3172-3200, water forced. Pictured with 30,000 gallons water & 25,000 sand. Pump with 3300 gallons water. I.R. 63.5 BPM, HDP 1250, Tr. pr.1600, Max. pr. 1800.

[illegible]

COOYLE AND CONNELLEY

[illegible]

FOC OF OF OB CUB METR

GEOLOGICAL SURVEY

CONTENTS OF THE INTRODUCTION

OMITTED DIVISION

TOTAL OF 1973: 1,653,000

[illegible]

U.S. DEPARTMENT OF COMMERCE

Figure 1. The effect of the concentration of the Ca^{2+} solution on the Ca^{2+} concentration in the Ca^{2+} solution.