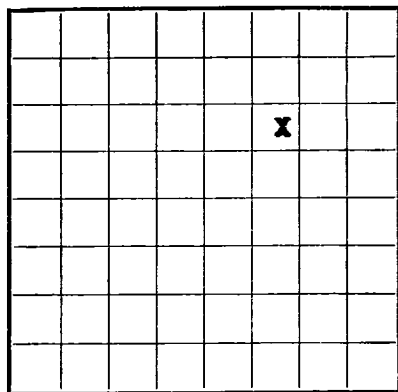
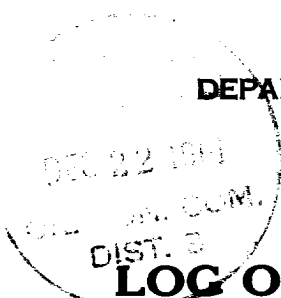


U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078097
LEASE OR PERMIT TO PROSPECT _____



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 990, Farmington, New Mexico
Lessor or Tract Heaton Field Basin Dakota State New Mexico
Well No. 17 Sec. 32 T. 31-N R. 11-W Meridian N.M.P.M.v County San Juan
Location 1830 ft. XXX of N. Line and 1470 ft. XXX of E. Line of Section 32 Elevation 5863
(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 _____

Date December 19, 1961 Title Petroleum Engineer

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

Commenced drilling 9-24-, 19 61 Finished drilling 10-14-, 19 61

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6719 to 6844 G No. 4, from _____ to _____
No. 2, from 6844 to 7020 G 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—	
<u>10 3/4"</u>	<u>32.5</u>	<u>8-11.5</u>	<u>4-10</u>	<u>287</u>	<u>Ball</u>	<u>6719</u>			<u>Structure</u>
<u>4 1/2"</u>	<u>12.6</u>	<u>8-9</u>	<u>4-10</u>	<u>61</u>	<u>Ball</u>	<u>6844</u>			<u>Production</u>
<u>2 3/8"</u>	<u>4.7</u>	<u>8-8</u>	<u>4-10</u>	<u>6976</u>	<u>Ball</u>	<u>6844</u>			<u>Prod tubing</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>10 3/4"</u>	<u>312</u>	<u>240</u>	<u>circulated</u>		
<u>4 1/2"</u>	<u>7074</u>	<u>550</u>	<u>3 stage</u>		

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
<u>6936-42; 6948-54; 6970-76;</u>		<u>Frac L. Dak w/60, 433 gal water, 32,500# ad. Flush 4830 gal. IR</u>				
<u>6986-92; 6998-7004;</u>		<u>18.9BPM. MP 3000, BDP 1500, tr pr 3800#</u>				
<u>6774-80; 6802-08;</u>		<u>Frac U. Dak w/60, 770 gal water, 60,000# ad. Flush 4620 gal. MP</u>				
<u>6852-58; 6868-74;</u>		<u>4200, BDP 1500, tr pr 3500#.</u>				

Rotary tools were used from 0 feet to 7078 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

10-31-, 19 61 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 3,447,000 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. 2,067 csg. A.O.F. 4078 MCF/D

EMPLOYEES

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

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>1104</u>	<u>1104</u>	<u>Tan to gry cr-grn ss interbedded w/gry sh.</u>
<u>1104</u>	<u>2075</u>	<u>971</u>	<u>Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.</u>
<u>2075</u>	<u>2352</u>	<u>277</u>	<u>Fruitland form. Gry carb sh, scattered coals, coals and gry, tight, fine-grn ss.</u>
<u>2352</u>	<u>2400</u>	<u>48</u>	<u>Pictured Cliffs forms. Gry, fine-grn, tight, varicolored soft ss.</u>
<u>2400</u>	<u>4000</u>	<u>1600</u>	<u>Lewis form. Gry, fine-grn, dense sil ss.</u>
<u>4000</u>	<u>4161</u>	<u>161</u>	<u>Cliff House ss. Gry, fine-grn, dense sil ss.</u>
<u>4161</u>	<u>4614</u>	<u>453</u>	<u>Manatee form. Gry, fine-grn s, carb sh & coal.</u>
<u>4614</u>	<u>4784</u>	<u>170</u>	<u>Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.</u>
<u>4784</u>	<u>5928</u>	<u>1144</u>	<u>Mancos form. Gry carb sh.</u>
<u>5928</u>	<u>6654</u>	<u>726</u>	<u>Gallup form. Lt gry to brn calc carb micac glauco very fine gry ss w/irreg interbed sh.</u>
<u>6654</u>	<u>6719</u>	<u>65</u>	<u>Greenhorn form. Highly calc gry sh w/thin lnt.</u>
<u>6719</u>	<u>6846</u>	<u>125</u>	<u>Graneros form. Dk gry shale, fossil & carb w/prite incl.</u>
<u>6844</u>	<u>7020</u>	<u>176</u>	<u>Dakota form. Lt to dk gry foss carb sl calc sl silty sh w/prite incl thin sh bands clay & shale breaks.</u>
<u>7020</u>	<u>7078</u>	<u>58</u>	<u>Morrison form. Interbed grn brn and red waxy sh & fr to cr grn sand.</u>

(OVER)

FORMATION RECORD—CONTINUED

