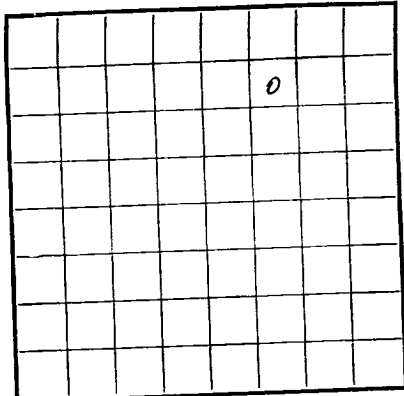
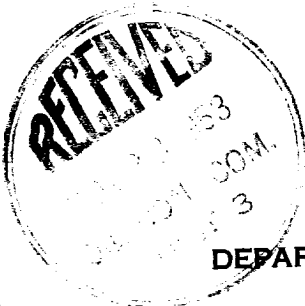


U. S. LAND OFFICE **Santa Fe**  
SERIAL NUMBER **078387-A**  
LEASE OR PERMIT TO PROSPECT

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 **Kernaghan** Field **Blanco** State **New Mexico**  
Well No. **3** Sec. **29** T. **31N** R. **8W** Meridian **N. M. P. M.** County **San Juan**  
Location **990** ~~XXX~~ of **N** Line and **1650** ~~XXX~~ ft. of **E** Line of **Section 29** Elevation **6579**  
(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 *Harold L. Hendrich*

Date **November 17, 1953**Title **Petroleum Engineer**

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

Commenced drilling **September 22**, 19**53** Finished drilling **October 22**, 19**53**

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **3453** to **3532 (G)** No. 4, from **5707** to **5782 (G)**  
No. 2, from **5253** to **5368 (G)** No. 5, from \_\_\_\_\_ to \_\_\_\_\_  
No. 3, from **5368** to **5707 (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— |            |
| 9-5/8       | 36              | 8 RD             | Spang | 166    | HOWCO        |                     |            |     | Surface    |
| 7           | 23              | 8 RD             | Spang | 2042   | Howco        |                     |            |     | Prod. Csg. |
| 7           | 23              | 8 RD             | Spang | 1942   | Howco        |                     |            |     | Prod. Csg. |
| 2           | 4.7             | 8 RD             | Young | 5782   | Howco        |                     |            |     | Prod. Tbg. |

## MUDDING AND CEMENTING RECORD

| Size casing | Where set | Number sacks of cement | Method used  | Mud gravity | Amount of mud used |
|-------------|-----------|------------------------|--------------|-------------|--------------------|
| 9-5/8       | 178       | 125                    | Circulated   |             |                    |
| 7           | 5200      | 500                    | 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 |
|------|------------|----------------|----------|-------|------------|-------------------|
| Qts. | Reg.       | S. N. G.       | 1355     | 10-23 | 5312-5782  | 5782              |

## TOOLS USED

## Gas Drilling

Rotary tools were used from **0** feet to **5200** feet, and from **5200** feet to **5782** feet  
Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

## DATES

October **26**, 19**53**

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. \_\_\_\_\_

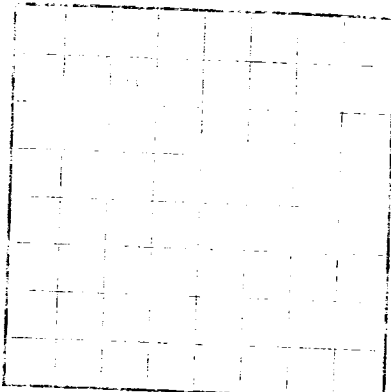
If gas well, cu. ft. per 24 hours **4,830,000** Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_Rock pressure, lbs. per sq. in. **1048**

## EMPLOYEES

\_\_\_\_\_, Driller  
\_\_\_\_\_, Driller  
\_\_\_\_\_, Driller

## FORMATION RECORD

| FROM— | TO—  | TOTAL FEET | FORMATION                                                                            |
|-------|------|------------|--------------------------------------------------------------------------------------|
| 0     | 855  | 855        | Tan cr-grn ss w/thin sh breaks.                                                      |
| 855   | 2125 | 1270       | Variegated sh w/thin ss breaks.                                                      |
| 2125  | 2688 | 563        | Tan to gry cr-grn ss interbedded w/gry sh.                                           |
| 2688  | 2797 | 109        | Ojo Alamo ss. White cr-grn s.                                                        |
| 2797  | 3116 | 319        | Kirtland formation. Gry sh interbedded w/tight gry fine-grn ss.                      |
| 3116  | 3453 | 337        | Fruitland formation. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss. |
| 3453  | 3532 | 79         | Pictured Cliffs formation. Gry, fine-grn, tight, varicolored soft ss.                |
| 3532  | 5253 | 1721       | Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.                   |
| 5253  | 5368 | 115        | Cliff House ss. Gry, fine-grn, dense sil ss.                                         |
| 5368  | 5707 | 339        | Menefee formation. Gry, fine-grn s, carb sh and coal.                                |
| 5707  | 5782 | 75         | Point Lookout formation. Gry, very fine sil ss w/frequent sh breaks.                 |
|       |      |            | Manees formation. Gry carb sh.                                                       |
|       |      |            | <b>Top</b>                                                                           |
|       |      |            | Ojo Alamo <b>2688</b>                                                                |
|       |      |            | Kirtland <b>2797</b>                                                                 |
|       |      |            | Fruitland <b>3116</b>                                                                |
|       |      |            | Pictured Cliffs <b>3453</b>                                                          |
|       |      |            | Lewis <b>3532</b>                                                                    |
|       |      |            | Cliff House <b>5253</b>                                                              |
|       |      |            | Menefee <b>5368</b>                                                                  |
|       |      |            | Point Lookout <b>5707</b>                                                            |



LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
UNITED STATES

Company Name \_\_\_\_\_  
Location \_\_\_\_\_  
The information given herewith is a complete record of the work done in the well, and is intended to be a permanent record of the same.

Date \_\_\_\_\_  
The summary on this page is for the condition of the well at the time of the last entry.

Oil or Gas Sands or Solids \_\_\_\_\_  
No. 1 from \_\_\_\_\_ to \_\_\_\_\_  
No. 2 from \_\_\_\_\_ to \_\_\_\_\_  
No. 3 from \_\_\_\_\_ to \_\_\_\_\_

Important Water Levels \_\_\_\_\_  
No. 1 from \_\_\_\_\_ to \_\_\_\_\_  
No. 2 from \_\_\_\_\_ to \_\_\_\_\_

Casing Record \_\_\_\_\_  
From \_\_\_\_\_ to \_\_\_\_\_  
To \_\_\_\_\_

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.

HISTORY OF OIL OR GAS WELL

MILKING AND CEMENTING RECORD

PLUGS AND ADAPTORS

SHOOTING RECORD

TOOLS USED

EMPLOYEES

FORMATION RECORD

FORMATION

varicolored shales  
Battered Chalk formation, Cr., fine-grained, light  
coarse sand, light fine-grained  
Fossiliferous, brown, gray and red, medium to coarse  
Kirkwood, fine-grained, light brown, medium to coarse  
Ojo Alamo, fine-grained, light brown, medium to coarse  
Tan to gray, medium to coarse, bedded, wavy-bedded  
Variegated, light brown, medium to coarse  
Tan, medium to coarse, thin sh. breaks

Point, medium to coarse, very fine sh. ss  
w/bedded sh. breaks  
Manganese, iron, gray, earthy  
Chalk, II, medium to coarse, light brown, medium to coarse  
Manganese, iron, gray, earthy  
Chalk, II, medium to coarse, light brown, medium to coarse  
Point, medium to coarse, very fine sh. ss  
w/bedded sh. breaks

FORMATION RECORD—Continued

LOG NO. 1012