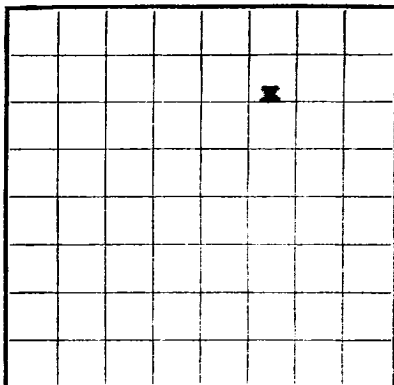




LOCATE WELL CORRECTLY

U. S. LAND OFFICE  
SERIAL NUMBER  
LEASE OR PERMIT TO PROSPECTUNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## LOG OF OIL OR GAS WELL

Company Pan American Petroleum Corporation Address Box 480, Farmington, New Mexico  
Lessor or Tract Jicarilla Apache 102 Field Basin Dakota State New Mexico  
Well No. 13 Sec. 10 T. 26N R. 11W Meridian N.M.P.M. County Rio Arriba  
Location 1190 ft. N of M Line and 1450 ft. N of E Line of Section 10 Elevation 6857  
(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. Fred L. Nabors, District Engineer  
Signed ORIGINAL SIGNED BY  
F. H. HOLLINGSWORTH  
Title \_\_\_\_\_

Date October 28, 1963

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

Commenced drilling September 10, 1963 Finished drilling September 20, 1963

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 7753 to 7767 (G) No. 4, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from 7776 to 7790 (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>32.35</u>    | <u>8RT</u>       | <u>J-55</u> | <u>9928</u> | <u>Guide</u> |                     |            |     | <u>Surface</u>      |
| <u>7-5/8"</u>  | <u>26.43</u>    | <u>8RT</u>       | <u>J-55</u> | <u>9928</u> | <u>Guide</u> |                     |            |     | <u>Intermediate</u> |
| <u>4-1/2"</u>  | <u>10.55</u>    | <u>8RT</u>       | <u>J-55</u> | <u>8000</u> | <u>Guide</u> |                     |            |     | <u>Oil String</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>203</u>  | <u>140</u>             | <u>Halliburton 1 Plug</u> |             |                    |
| <u>7-5/8"</u>  | <u>3896</u> | <u>140</u>             | <u>Halliburton 2 Plug</u> |             |                    |
| <u>4-1/2"</u>  | <u>8035</u> | <u>500</u>             | <u>Halliburton 1 Plug</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 |
|------|------------|----------------|----------|------|------------|-------------------|
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |

## TOOLS USED

Rotary tools were used from 0 feet to 8035 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

## DATES

Completed as Shut in Basin Dakota Field \_\_\_\_\_ Put to producing Completed, 1963  
September 28, 63 Well September 28

The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_ % was oil; \_\_\_\_\_ %  
emulsion; \_\_\_\_\_ % water; and \_\_\_\_\_ % sediment. Gravity, °Bé. \_\_\_\_\_

If gas well, scf per 24 hours 5669 Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_Rock pressure, xxx lbs. per sq. in. 2320 (GFC)

## EMPLOYEES

\_\_\_\_\_, Driller \_\_\_\_\_, Driller  
R. E. Lurhe, Driller C. L. Yoakum, Driller  
J. E. Pascock Jack Guinn

## FORMATION RECORD

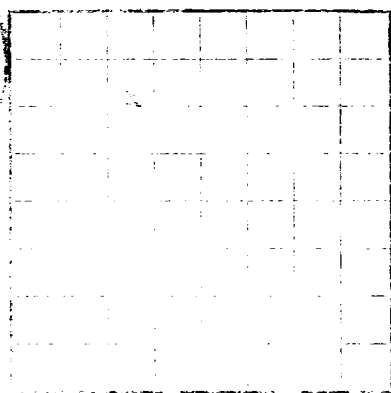
| FROM—       | TO—         | TOTAL FEET  | FORMATION                     |
|-------------|-------------|-------------|-------------------------------|
| <u>0</u>    | <u>3556</u> | <u>3556</u> | <u>Surface sand and shale</u> |
| <u>3556</u> | <u>3642</u> | <u>86</u>   | <u>Pictured Cliffs</u>        |
| <u>3642</u> | <u>4516</u> | <u>874</u>  | <u>Lewis shale</u>            |
| <u>4516</u> | <u>5797</u> | <u>1281</u> | <u>Mesaverde Group</u>        |
| <u>5797</u> | <u>6905</u> | <u>1108</u> | <u>Mancos</u>                 |
| <u>6905</u> | <u>7286</u> | <u>381</u>  | <u>Gallup</u>                 |
| <u>7286</u> | <u>7660</u> | <u>374</u>  | <u>Mancos</u>                 |
| <u>7660</u> | <u>7717</u> | <u>57</u>   | <u>Greenhorn shale</u>        |
| <u>7717</u> | <u>7735</u> | <u>18</u>   | <u>Graneros shale</u>         |
| <u>7735</u> | <u>7880</u> | <u>145</u>  | <u>Graneros Dakota</u>        |
| <u>7880</u> | <u>8035</u> | <u>155</u>  | <u>Main Dakota</u>            |

(OVER)

U.S. GEOLOGICAL SURVEY  
BUREAU OF MINERAL INVESTIGATION  
WASHINGTON, D.C.

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
UNITED STATES

LOG OF OIL OR GAS WELL



Company Name and Address: \_\_\_\_\_  
Lessor or Owner Name: \_\_\_\_\_  
Well No. \_\_\_\_\_  
Location: \_\_\_\_\_  
The information given here is a complete and correct record of the well and all work done thereon  
as far as can be determined from all available records.  
Signed \_\_\_\_\_  
F. H. HOLLINGSWORTH  
ORIGINAL SIGNED BY  
Date \_\_\_\_\_  
The summary on this page is for the condition of the well at above date.  
Commenced drilling \_\_\_\_\_  
Finished drilling \_\_\_\_\_

OIL OR GAS SANDS OR ZONES

No. 1, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from \_\_\_\_\_ to \_\_\_\_\_  
No. 3, from \_\_\_\_\_ to \_\_\_\_\_

IMPORTANT WATER SANDS

No. 1, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from \_\_\_\_\_ to \_\_\_\_\_

CASING RECORD

Size \_\_\_\_\_  
Type \_\_\_\_\_  
Depth \_\_\_\_\_  
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 the results. If there were any changes made in the casing, state fully, and if any casing was added, state the 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

Mudding and Cementing Record  
Amount of mud used \_\_\_\_\_  
Mud grade \_\_\_\_\_  
Mud used \_\_\_\_\_

| Size | Weight | Depth | Remarks |
|------|--------|-------|---------|
|      |        |       |         |
|      |        |       |         |
|      |        |       |         |
|      |        |       |         |

PLUGS AND ADAPTERS

Heaving plug - \_\_\_\_\_  
Adapter - \_\_\_\_\_  
Site \_\_\_\_\_  
Depth \_\_\_\_\_

SHOOTING RECORD

| Size | Shell used | Explosive used | Quantity | Date | Depth shot | Depth cleared out |
|------|------------|----------------|----------|------|------------|-------------------|
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |

TOOLS USED

Rotary tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet.  
Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet.

DATES

The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_ was oil; \_\_\_\_\_ was water; and \_\_\_\_\_ sediment.  
It was well, \_\_\_\_\_ per 24 hours.  
Rock pressure, \_\_\_\_\_ per sq. in.

EMPLOYEES

Driller \_\_\_\_\_  
Driller \_\_\_\_\_  
Driller \_\_\_\_\_

FORMATION RECORD

| FROM - | TO - | TOTAL FEET | FORMATION |
|--------|------|------------|-----------|
| 0      | 10   | 10         | Gravel    |
| 10     | 20   | 20         | Sand      |
| 20     | 30   | 30         | Clay      |
| 30     | 40   | 40         | Shale     |
| 40     | 50   | 50         | Sand      |
| 50     | 60   | 60         | Clay      |
| 60     | 70   | 70         | Shale     |
| 70     | 80   | 80         | Sand      |
| 80     | 90   | 90         | Clay      |
| 90     | 100  | 100        | Shale     |
| 100    | 110  | 110        | Sand      |
| 110    | 120  | 120        | Clay      |
| 120    | 130  | 130        | Shale     |
| 130    | 140  | 140        | Sand      |
| 140    | 150  | 150        | Clay      |
| 150    | 160  | 160        | Shale     |
| 160    | 170  | 170        | Sand      |
| 170    | 180  | 180        | Clay      |
| 180    | 190  | 190        | Shale     |
| 190    | 200  | 200        | Sand      |
| 200    | 210  | 210        | Clay      |
| 210    | 220  | 220        | Shale     |
| 220    | 230  | 230        | Sand      |
| 230    | 240  | 240        | Clay      |
| 240    | 250  | 250        | Shale     |
| 250    | 260  | 260        | Sand      |
| 260    | 270  | 270        | Clay      |
| 270    | 280  | 280        | Shale     |
| 280    | 290  | 290        | Sand      |
| 290    | 300  | 300        | Clay      |
| 300    | 310  | 310        | Shale     |
| 310    | 320  | 320        | Sand      |
| 320    | 330  | 330        | Clay      |
| 330    | 340  | 340        | Shale     |
| 340    | 350  | 350        | Sand      |
| 350    | 360  | 360        | Clay      |
| 360    | 370  | 370        | Shale     |
| 370    | 380  | 380        | Sand      |
| 380    | 390  | 390        | Clay      |
| 390    | 400  | 400        | Shale     |
| 400    | 410  | 410        | Sand      |
| 410    | 420  | 420        | Clay      |
| 420    | 430  | 430        | Shale     |
| 430    | 440  | 440        | Sand      |
| 440    | 450  | 450        | Clay      |
| 450    | 460  | 460        | Shale     |
| 460    | 470  | 470        | Sand      |
| 470    | 480  | 480        | Clay      |
| 480    | 490  | 490        | Shale     |
| 490    | 500  | 500        | Sand      |
| 500    | 510  | 510        | Clay      |
| 510    | 520  | 520        | Shale     |
| 520    | 530  | 530        | Sand      |
| 530    | 540  | 540        | Clay      |
| 540    | 550  | 550        | Shale     |
| 550    | 560  | 560        | Sand      |
| 560    | 570  | 570        | Clay      |
| 570    | 580  | 580        | Shale     |
| 580    | 590  | 590        | Sand      |
| 590    | 600  | 600        | Clay      |
| 600    | 610  | 610        | Shale     |
| 610    | 620  | 620        | Sand      |
| 620    | 630  | 630        | Clay      |
| 630    | 640  | 640        | Shale     |
| 640    | 650  | 650        | Sand      |
| 650    | 660  | 660        | Clay      |
| 660    | 670  | 670        | Shale     |
| 670    | 680  | 680        | Sand      |
| 680    | 690  | 690        | Clay      |
| 690    | 700  | 700        | Shale     |
| 700    | 710  | 710        | Sand      |
| 710    | 720  | 720        | Clay      |
| 720    | 730  | 730        | Shale     |
| 730    | 740  | 740        | Sand      |
| 740    | 750  | 750        | Clay      |
| 750    | 760  | 760        | Shale     |
| 760    | 770  | 770        | Sand      |
| 770    | 780  | 780        | Clay      |
| 780    | 790  | 790        | Shale     |
| 790    | 800  | 800        | Sand      |
| 800    | 810  | 810        | Clay      |
| 810    | 820  | 820        | Shale     |
| 820    | 830  | 830        | Sand      |
| 830    | 840  | 840        | Clay      |
| 840    | 850  | 850        | Shale     |
| 850    | 860  | 860        | Sand      |
| 860    | 870  | 870        | Clay      |
| 870    | 880  | 880        | Shale     |
| 880    | 890  | 890        | Sand      |
| 890    | 900  | 900        | Clay      |
| 900    | 910  | 910        | Shale     |
| 910    | 920  | 920        | Sand      |
| 920    | 930  | 930        | Clay      |
| 930    | 940  | 940        | Shale     |
| 940    | 950  | 950        | Sand      |
| 950    | 960  | 960        | Clay      |
| 960    | 970  | 970        | Shale     |
| 970    | 980  | 980        | Sand      |
| 980    | 990  | 990        | Clay      |
| 990    | 1000 | 1000       | Shale     |