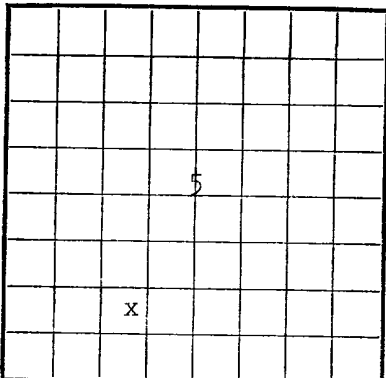


3 - USGS  
2 - NMOC  
1 - Southern Union  
1 - State Land Office

Form 9-330

Budget Bureau No. 42-R-355.3  
Approval expires 12-31-55.

U. S. LAND OFFICE Santa Fe  
SERIAL NUMBER NM-03598  
LEASE OR PERMIT TO PROSPECT



1 - L. G. Truby  
1 - File

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company PACIFIC NORTHWEST PIPELINE CORP. Address 405<sup>1</sup>/<sub>2</sub> West Broadway, Farmington, N.M.  
Lessor or Tract Blanco 31-8 Field Blanco Mesa Verde State New Mexico  
Well No. 2-5 Sec. 5 T. 31N R. 8W Meridian N.M.P.M. County San Juan  
Location 1010' ft. [N.] of S. Line and 1920' ft. [E.] of W. Line of Section 5 Elevation 6437' (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 by G. H. Reppin

Date September 16, 1957 Title District Proration Engineer

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

Commenced drilling July 9, 1957 Finished drilling July 21, 1957

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from G 5280' to 5805' 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 None 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 |
|-------------|-----------------|------------------|-----------|----------------|--------------|---------------------|------------|---------|
| 10-3/4      | 432.75          | 8rd.             | LoneStar  | 197'           | None         |                     |            |         |
| 7-5/8       | 354.4           | 10rd.            | Youngston | 5805' to 5842' | (Tubing)     |                     |            |         |

MUDDING AND CEMENTING RECORD

| Size casing | Where set | Number sacks of cement | Method used | Mud gravity | Amount of fluid used |
|-------------|-----------|------------------------|-------------|-------------|----------------------|
| 10-3/4      | 211'      | 200                    | Pump Plug   |             |                      |
| 7-5/8       | 354.4'    | 200                    | Pump Plug   |             |                      |
| 5-1/2       | 5845'     | 150                    | Pump Plug   |             |                      |

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 5845' feet, and from feet to feet

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

DATES

August 21, 1957 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 2,595,000 Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in. Tbg. 845#, Csg. 1120#, CAOF 2,787 Shut in 7 days.

EMPLOYEES

, Driller , Driller

, Driller , Driller

FORMATION RECORD

| FROM— | TO—   | TOTAL FEET | FORMATION             |
|-------|-------|------------|-----------------------|
| 0'    | 2055' | 2055'      | Surface               |
| 2055' | 2097' | 42'        | Ojo Alamo             |
| 2097' | 2971' | 874'       | Kirtland              |
| 2971' | 3325' | 354'       | Fruitland             |
| 3325' | 3462' | 137'       | Pictured Cliffs       |
| 3462' | 5265' | 1803'      | Lewis                 |
| 5265' | 5332' | 67'        | Cliff House           |
| 5332' | 5648' | 316'       | Menefee               |
| 5648' | TD'   | 197'       | Point Lookout         |
| 5845' |       |            | Total Depth           |
| 5842' |       |            | Plug Back Total Depth |

FORM

LO

LOUISIANA

(OVER)

LOUISIANA

16-43094-3

FORMATION RECORD—Continued



## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesa Verde County San Juan

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9-4-57

Company Pacific Northwest Pipeline Lease Blanco 31-8 Well No. 2-5

Unit H Sec. 5 Twp. 31N Rge. 8W Purchaser not connected

Casing 5-1/2" Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at 5845 Perf. 5805 To 5800

Tubing 1-1/4" Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at 5802 Perf. \_\_\_\_\_ To \_\_\_\_\_

Gas Pay: From 5805 To 5800 L \_\_\_\_\_ xG .650 -GL \_\_\_\_\_ Bar.Press. 12

Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well single

Date of Completion: \_\_\_\_\_ Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Shut in 7 days Type Taps \_\_\_\_\_

| No. | Flow Data                  |                              |                |                         |              | Tubing Data    |              | Casing Data    |              | Duration of Flow Hr. |
|-----|----------------------------|------------------------------|----------------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------------|
|     | (Prover)<br>(Line)<br>Size | (Choke)<br>(Orifice)<br>Size | Press.<br>psig | Diff.<br>h <sub>w</sub> | Temp.<br>°F. | Press.<br>psig | Temp.<br>°F. | Press.<br>psig | Temp.<br>°F. |                      |
| SI  |                            |                              |                |                         |              | <u>845</u>     |              | <u>1120</u>    |              |                      |
| 1.  |                            | <u>3/4</u>                   | <u>204</u>     |                         | <u>69°</u>   | <u>383</u>     |              | <u>204</u>     | <u>69°</u>   | <u>3 hours</u>       |
| 2.  |                            |                              |                |                         |              |                |              |                |              |                      |
| 3.  |                            |                              |                |                         |              |                |              |                |              |                      |
| 4.  |                            |                              |                |                         |              |                |              |                |              |                      |
| 5.  |                            |                              |                |                         |              |                |              |                |              |                      |

## FLOW CALCULATIONS

| No. | Coefficient<br>(24-Hour) | $\sqrt{h_{wpf}}$ | Pressure<br>psia | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Compress.<br>Factor<br>F <sub>pv</sub> | Rate of Flow<br>Q-MCFPD<br>@ 15.025 psia |
|-----|--------------------------|------------------|------------------|----------------------------------------|-------------------------------------|----------------------------------------|------------------------------------------|
| 1.  | <u>12.3650</u>           |                  | <u>216</u>       | <u>.9915</u>                           | <u>.9608</u>                        | <u>1.020</u>                           | <u>2795</u>                              |
| 2.  |                          |                  |                  |                                        |                                     |                                        |                                          |
| 3.  |                          |                  |                  |                                        |                                     |                                        |                                          |
| 4.  |                          |                  |                  |                                        |                                     |                                        |                                          |
| 5.  |                          |                  |                  |                                        |                                     |                                        |                                          |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 1132 P<sub>c</sub><sup>2</sup> 1281.4

| No. | P <sub>w</sub><br>P <sub>t</sub> (psia) | P <sub>t</sub> <sup>2</sup> | F <sub>c</sub> Q | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup><br>(1-e <sup>-s</sup> ) | <u>335</u><br>P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Cal.<br>P <sub>w</sub> | P <sub>w</sub><br>P <sub>c</sub> |
|-----|-----------------------------------------|-----------------------------|------------------|---------------------------------|---------------------------------------------------------|-------------------------------------------|----------------------------------------------------------|------------------------|----------------------------------|
| 1.  |                                         |                             |                  |                                 |                                                         | <u>112.2</u>                              | <u>1169.2</u>                                            |                        | <u>1.10</u>                      |
| 2.  |                                         |                             |                  |                                 |                                                         |                                           |                                                          |                        |                                  |
| 3.  |                                         |                             |                  |                                 |                                                         |                                           |                                                          |                        |                                  |
| 4.  |                                         |                             |                  |                                 |                                                         |                                           |                                                          |                        |                                  |
| 5.  |                                         |                             |                  |                                 |                                                         |                                           |                                                          |                        |                                  |

Absolute Potential: 2707 MCFPD; n .75 / 1.0741

COMPANY Pacific Northwest Pipeline Corporation

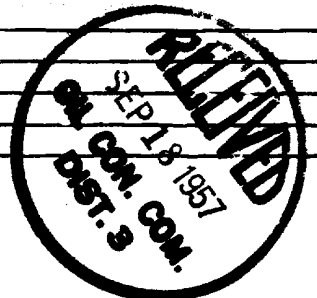
ADDRESS 405 1/2 West Broadway, Farmington, New Mexico

AGENT and TITLE G. R. Wagner - Well Test Engineer

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS \_\_\_\_\_



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if  
flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressability factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

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