

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA
EXCEPT BARKER DOME STORAGE AREA)

Pool Blanco Formation Mesa Verde County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corp. Date Test Filed May 23, 1956
Operator Pacific Northwest Pipeline Corporation Lease 29-5 Well No. 7-7
Unit A Sec. 7 Twp. 29N Rge. 5W Pay Zone: From 5326 To 5864
Casing: OD 7" WT. 23 Set At 5326 Tubing: OD 2" WT. 4.7 T. Perf. 5806
Produced Through: Casing X Tubing X Gas Gravity: Measured Estimated .644
Date of Flow Test: From 5-9 To 5-17-56 * Date S.I.P. Measured 6-28-55
Meter Run Size 4" Orifice Size 1-1/4" Type Chart Normal Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) psig + 12 = psia (b)
Flowing meter pressure (Dwt) psig + 12 = psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading ()² x spring constant = psia (d)
Meter error (c) - (d) or (d) - (c) ± = psi (e)
Friction loss, Flowing column to meter: = psi (f)
(b) - (c) Flow through tubing: (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart) 630
Normal chart average reading psig + 12 = 642 psia (g)
Square root chart average reading ()² x sp. const. = 642 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 642 psia (h)
P_t = (h) + (f) = 642 psia (i)
Wellhead casing shut-in pressure (Dwt) 1120 psig + 12 = 1132 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1104 psig + 12 = 1116 psia (k)
P_c = (j) or (k) whichever well flowed through = 1136 psia (l)
Flowing Temp. (Meter Run) 75 °F + 460 = 535 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 568 psia (n)

FLOW RATE CALCULATION

Q = X $\left(\frac{V(c)}{V(d)} \right) = \text{MCF/da}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 1260 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75} = \text{MCF/da.}$
967,872 1.146
844,872 1.108

SUMMARY

P_c = 1136 psia
Q = 1260 Mcf/day
P_w = 568 psia
P_d = 568 psia
D = 1396 Mcf/day

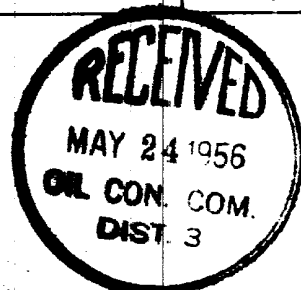
Company PACIFIC NORTHWEST PIPELINE CORP.
By W. B. Richardson III (W.B.)
Title MANAGEMENT ENG.
Witnessed by
Company

- * This is date of completion test.
- * Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _t ² (Column 1)	P _t ² + R ²	P _w
3739	.238	140.35	33.493	412.164	445.967	667.5

3 - N.M.O.C.
1 - W. B. Johnston
1 - L. G. Tryby
1 - R. C. Frederick
1 - Oliver Fowler
2 - File



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P_d = 1/2 P_c = 1/2 (l) = 568 psia (n)

FLOW RATE CALCULATION

$$Q = \text{(Integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \text{ } = \text{ } \right) = \text{ } \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \text{ } \frac{1260}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} = \frac{967,872}{844,272} \right]^n} \frac{.75}{1.108} = \frac{1.146}{1.108} = 1396 \text{ MCF/day}$$

SUMMARY

P_c = 1136 psia
Q = 1260 Mcf/day
P_w = 668 psia
P_d = 568 psia
D = 1396 Mcf/day

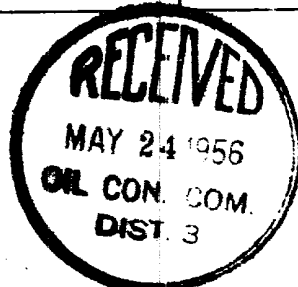
Company PACIFIC NORTHWEST PIPELINE CORP.
By W. B. Richardson III (W.B.)
Title Measurement Engr.
Witnessed by
Company

- * This is date of completion test.
- * Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-s})	(F _c Q) ²	(F _c Q) ² (1-e ^{-s}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
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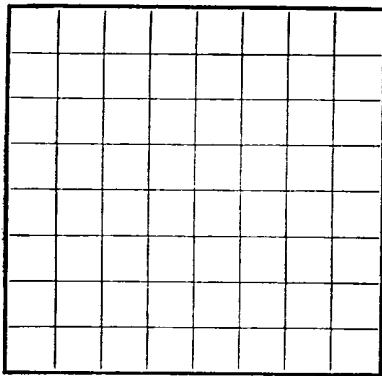
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1-W.R. Johnston
1-FileU. S. LAND OFFICE Santa FeSERIAL NUMBER 078277

LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company PACIFIC NORTHWEST PIPELINE CORP. Address 413 1/2 W. Main, Farmington, New MexicoLessor or Tract San Juan 29-5 Field Blanco State New MexicoWell No. 7-7 Sec. 7 T. 29N R. 5W Meridian NMPM County Rio ArribaLocation 790 ft. N of S Line and 990 ft. E of S Line of Sec. 7 Elevation 6520.6
(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 J. A. Nugler

Date

Title District Engineer

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

Commenced drilling June 1, 1955 Finished drilling June 22, 1955

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5332 to 5850 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 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
							From—	To—	
9-5/8			Baker	1	Tex. Pat.				
9-5/8	32.2	8 Rd	Baker	248.69					
7"			Baker	1					
7"	23 1/2	8 Rd		5314.35					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement		Method used	Mud gravity	Amount of mud used
9-5/8	263	143	8x 4% Gel.	Halliburton		
7"	5326	250	8x 8% Gel.	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set

Adapters—Material None 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 5864 feet, and from feet to feet

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

DATES

6-22, 1955 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, None per 24 hours 4040 Gallons gasoline per 1,000 cu. ft. of gasRock pressure, lbs. per sq. in. SITP 1124 - SICP 1120
EMPLOYEESJim Newman, Irig. Foreman, Driller, Driller

, Driller, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2618	2618	Surface
2618	2783	165	Sand - OJO Alamo
2783	3140	357	Shale w/ some sand Kirtland
3140	3460	320	Interbedded, Shales, Coals & Sands, Fruitland
3460	3610	150	Sand - Pictured Cliffs
3610	5332	1722	Shale - Lewis
5332	5366	34	Sand - Cliff House
5366	5650	284	Sands, Shales, & Coal, Menefee
5650	5850	200	Sand Point Lookout
5850		0	Shale
5850	5864	14	Total Depth

[OVER]

16-43094-3

