

3-18308 Artec
1-Bill Galtier
1-W. R. Johnston
1-Oliver Fowler
1-Wayne Smith
1-File

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Elanceo Mesa Verde Formation Mesa Verde County San Juan
Initial X Annual _____ Special _____ Date of Test 6-30-57
Company Pacific Northwest Pipeline Corporation San Juan 32-8 Well No. 21-15
Unit A Sec. 15 Twp. 31N Rge. 8E Purchaser Not connected
7-15/8
Casing 5 1/2 Wt. _____ I.D. _____ Set at 5450 Perf. 5982 To 5470
Tubing 1-1/4 Wt. _____ I.D. _____ Set at 5910 Perf. _____ To _____
Gas Pay: From _____ To _____ L _____ xCent. 65 -GL _____ Bar.Press. _____
Producing Thru: Casing X Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: _____ Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps _____

| Flow Data | | | | | | Tubing Data | | Casing Data | | Duration of Flow Hr. |
|-----------|----------------------------|--|----------------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------------------|
| No. | (Prover) (Line) Size | (Choke) (Pressure) Size | Press. psig | Diff. h _w | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. | |
| SI | | | | | | 864 | | 948 | | Start In |
| 1. | | 3/4" IN | 230 | | 67° | 872 | | | | 3 Hrs. |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w P_f}$ | Pressure psia | Flow Temp. Factor F _t | Gravity Factor F _g | Compress. Factor F _{pv} | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|--------------------------|------------------|------------------|--|-------------------------------------|--|--|
| 1. | <u>14.1605</u> | | <u>231</u> | <u>.9933</u> | <u>.9608</u> | <u>1.023</u> | <u>3470</u> |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

PRESSURE CALCULATIONS

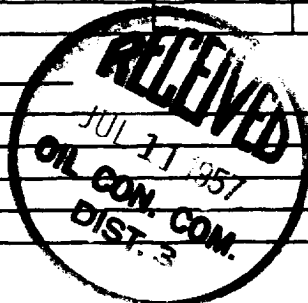
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 960 P_c 921.600

| No. | $\frac{P_w}{P_t}$ (psia) | $\frac{P_c^2}{P_t^2}$ | $\frac{F_c Q}{(1-e^{-s})}$ | $\frac{(F_c Q)^2}{(1-e^{-s})}$ | P_w^2 | $P_c^2 - P_w^2$ | Cal. P _w | $\frac{P_w}{P_c}$ |
|-----|-----------------------------|-----------------------|----------------------------|--------------------------------|--------------|-----------------|------------------------|-------------------|
| 1. | <u>284</u> | | | | <u>80656</u> | <u>84044</u> | | <u>1.0299</u> |
| 2. | | | | | | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |

Absolute Potential: 3717 MCFPD; n .75/ 1.0711

COMPANY Pacific Northwest Pipeline Corporation
ADDRESS 405 1/2 West Broadway, Berington, New Mexico
AGENT and TITLE D. C. Adams
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 .

| OIL CONSERVATION COMMISSION | | |
|-----------------------------|------------------|---|
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