NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC
1958 APR 14 AM 8:08

Form C-122
Revised 12-1-55

ONE
~~MULTI~~-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinebry Formation Blinebry County Lea

Initial X Annual ____ Special ____ Date of Test Dec. 19-20, 1957

Company Neville G. Penrose, Inc. Lease Hinton Well No. 5

Unit P Sec. 12 Twp. 22S Rge. 37E Purchaser Permian Basin Pipeline Co.

Casing 5½ Wt. 15.5 I.D. 4.950" Set at 6215' Perf. 5606' To 5642'

Tubing 2 3/8 Wt. 4.70 I.D. 1.995" Set at 6210' (Garrett Sleeve) Perf. 6206' To 6210'

Gas Pay: From 5606' To 5642' L 5992' xG 0.700 estL 4194' Bar.Press. 13.2

Producing Thru: Casing ____ Tubing This test only Type Well Gas-gas dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 12-15-57 Packer 6022' Reservoir Temp. ____

OBSERVED DATA

Tested Through 4" Meter run (~~Prover~~) (~~Choke~~) (~~Meter~~) Type Taps ____

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1610.5	1623.7			48 hrs.
1.	4 .	1.25"	511.0	12.1	62	520.2	533.4			24 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.	10.24	79.64		0.9981	0.9258	1.068	805
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
F_c ____ $(1-e^{-s})$ ____ P_c ____ P_c^2 ____

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	.	284.5	7.998	63.97	16.06	300.6	2335.8	548.3	.39
2.									
3.									
4.									
5.									

Absolute Potential: 898 MCFPD; n 0.90

COMPANY Permian Basin Pipeline Company
ADDRESS Hobbs, New Mexico
AGENT and TITLE R.L. West
WITNESSED Glenn G. Neill
COMPANY Neville G. Penrose, Inc.

REMARKS

Well tested through 4" meter run.
Specific gravity was estimated at .700 and the average Blinebry Pool slope (n) was used in the calculation of potentials.

WM. A. UTZ
GAS ENGINEER

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.