NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Formation Dakota County San Juan

Initial X Annual ____ Special ____ Date of Test 12-30-63

Company PUBCO PETROLEUM CORP. Lease Bruington Federal Well No. 15-N

Unit N Sec. 15 Twp. 30 N Rge. 11 W Purchaser El Paso Natural Gas Company

Casing 5½ Wt. 15½ I.D. ____ Set at 6880 Perf. 6660 To 6840

Tubing 2 3/8 Wt. 4.7 I.D. ____ Set at 6807 Perf. 6799 To 6807

Gas Pay: From 6660 To 6858 L ____ xG ____ -GL ____ Bar.Press. ____

Producing Thru: Casing ____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 12-18-63 Packer ____ Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover)~~ (Thornhill-Craver) (Choke) ~~(Meter)~~ Type Taps Flange

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	2"	.750				1880		1880		
1.						415		1018	70	1
2.						330		910	70	2
3.						288		803	70	2
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.	12.3650		300	.9905	.9325	1.033	3539
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas .690
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
F_c ____ $(1-e^{-s})$ ____ P_c 1892 P_c^2 3,579,664

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2 815²	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.						664,225	2,915,439		
2.									
3.									
4.									
5.									

Absolute Potential: 4,116 MCFPD; n .75

COMPANY PUBCO PETROLEUM CORP.
ADDRESS Postoffice Box P, Aztec, New Mexico
AGENT and TITLE Dan E. Jamieson, District Manager
WITNESSED Glen O. Rhodes
COMPANY Pubco Petroleum Corp.

REMARKS

RECEIVED
DEC 31 1963
OIL CON. COM.
DIST. 3

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.