

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesaverde Formation Mesaverde County Rio Arriba
Initial After Workover Annual _____ Special _____ Date of Test 7-25-66
Company Blackwood & Nichols Lease Northeast Blanco Unit Well No. 14
Unit _____ Sec. 2 Twp. 30N Rge. 7W Purchaser El Paso Natural Gas Company
Casing 4 1/2" Wt. 10.50 I.D. 4.052" Set at 5699' Perf. 5164' To 5692'
Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 5630' Perf. 5592' To 5598'
Gas Pay: From 5164 To 5692 L 5692 xG .655 -GL 3728 Bar.Press. 11.5
Producing Thru: Casing _____ Tubing x Type Well Single - Gas
Recompletion Single-Bradenhead-G. G. or G.O. Dual
Date of ~~Completion~~ 7-16-66 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Flowm) (Choke) (Mebm) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						535		917		
1.		3/4"				190		813		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.	12.3650		200.5				2491
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

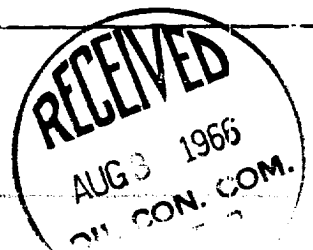
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
 P_c _____ $(1-e^{-s})$ _____

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
 P_c 928.5 P_c^2 862

No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-s})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{F_c}$
1.						680	182		.89
2.									
3.									
4.									
5.									

Absolute Potential: 7988 MCFPD; n .75
COMPANY Blackwood & Nichols Company
ADDRESS P. O. Box 1237, Durango, Colorado
AGENT and TITLE Delasso Loos Field Superintendent
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} = Supercompressibility 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 .