

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool                      Formation                      County                       
Initial                      Annual                      Special                      Date of Test 8-21-56  
Company                      Lease                      Well No.                       
Unit                      Sec.                      Twp.                      Rge.                      Purchaser                       
Casing: 1 1/2" Wt.                      I.D.                      Set at                      Perf.                      To                       
Tubing 2 3/8" Wt.                      I.D.                      Set at                      Perf.                      To                       
Gas Pay: From                      To                      L                      xG                      -GL                      Bar.Press. 11.0  
Producing Thru: Casing                      Tubing                      Type Well                       
Date of Completion:                      Packer                      Reservoir Temp.                     

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1057		1057		
1.		5/4"	263		60°	263	60°	603		3 hours
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650		264	1.00	0.463	1.027	3052
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio                      cf/bbl.  
Gravity of Liquid Hydrocarbons                      deg.  
F<sub>c</sub>                      (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas                       
Specific Gravity Flowing Fluid                       
P<sub>c</sub> 1770 P<sub>c</sub><sup>2</sup> 1154.9

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.						316.7	161.0		.563
2.									
3.									
4.									
5.									

Absolute Potential:                      MCFPD; n 0.05

COMPANY                       
ADDRESS                       
AGENT and TITLE                       
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  $P_t$ .

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