

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool SOUTH BLANCO Formation PICTURED CLIFFS County RIO ARRIBA  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-26-60  
Company CAULKINS OIL COMPANY Lease STATE "B" Well No. PD-233  
Unit D Sec. 16 Twp. 26N Rge. 6W Purchaser SOUTHERN UNION GAS COMPANY  
Casing 7" Wt. 20# I.D. \_\_\_\_\_ Set at 3038 Perf. 3038 To 3053  
Tubing 1 1/2" Wt. 2.4# I.D. 1.38 Set at 2905 Perf. XXXXX 2905 To \_\_\_\_\_  
Gas Pay: From 3038 To 3053 L 2905 xG .660 -GL 1917 Bar.Press. \_\_\_\_\_  
Producing Thru: Casing No Tubing Yes Type Well Gas-Gas Dual  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 9-29-60 Packer 7159 Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Master) 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						<u>711</u>	<u>60°</u>	<u>711</u>		<u>14 day S.I.</u>
1.		<u>3/4"</u>	<u>93</u>			<u>93</u>	<u>60°</u>	<u>361</u>		<u>3 hr. Flow</u>
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.	<u>14.1605</u>		<u>105</u>	<u>1.000</u>	<u>0.9535</u>	<u>1.012</u>	<u>1435</u>
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> 24.62 (1-e<sup>-s</sup>) 0.131

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 723 P<sub>c</sub><sup>2</sup> 522,729

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.	<u>373</u>					<u>139.1</u>	<u>333.6</u>		<u>0.517</u>
2.									
3.									
4.									
5.									

Absolute Potential: 1863 MCFPD; n (1.36)<sup>.85</sup> 1.2986

COMPANY CAULKINS OIL COMPANY

ADDRESS BOX 700, FARMINGTON, NEW MEXICO

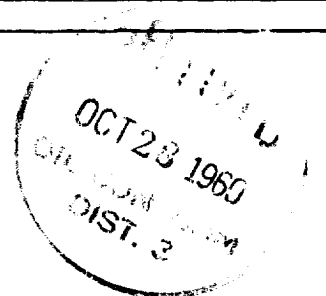
AGENT and TITLE Frank J. Gray

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.
- $F_{pv}$  = 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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