

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BALLARD Formation PICTURED CLIFFS County RIO ARriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 1-5-60  
Company Arizona Explorations, Inc Lease Jicarilla Well No. C-9  
Unit A Sec. 3 Twp. 23N Rge. 5W Purchaser Southern Union Gas Company  
Casing 5½" Wt. 14# I.D. \_\_\_\_\_ Set at 2377 Perf. 2288 To 2311  
Tubing 1½" Wt. 2.4# I.D. \_\_\_\_\_ Set at 2312 Perf. 2302 To 2312  
Gas Pay: From 2288 To 2311 L 2300 xG 0.690 -GL 1587 Bar.Press. 12.0  
Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well Single Gas  
Date of Completion: 12-11-59 Packer \_\_\_\_\_ Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (~~222222~~ Choke) (~~Not xxx~~) 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						686		686		
1.		3/4"	149		59	160		149	59	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.	14.1605		161	1.001	0.9325	1.020	2170
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

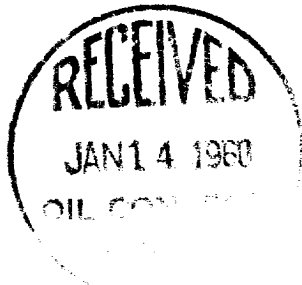
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 698 P<sub>c</sub> 487.204

AOF = (2170)  $\left( \frac{698^2}{698^2 - 161^2} \right)^{0.85} = 2273$

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.									
2.									
3.									
4.									
5.									

Absolute Potential: 2273 MCFPD; n 0.85  
COMPANY Arizona Explorations Inc.  
ADDRESS 417 Meadows Building, Dallas 6, Texas  
AGENT and TITLE Virgil L. Stoabs, Engineer  
WITNESSED George Credicott  
COMPANY Arizona Explorations, Inc.

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  $P_t$ .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
Well No.	3	
County		
Section		
Block		
Acres		
Operator		
Tester	1	✓
Date		
Time		
Pressure		
Flow		
Back Pressure		
Notes		