

3-OCC

1-H.L. Kendrick

1-Bill Parrish

1-Comm. Public Lands

1-Phillips

2-EPNG-El Paso-Farm. MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

NEW MEXICO OIL CONSERVATION COMMISSION

1-Sneddy (Holland)

1-Arnett

1-F

Form C-122

Revised 12-1-55

Pool Basin Dakota Formation Dakota County Rio Arriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10/30/63  
Company Beta Development Co. Lease San Juan 28-6 Unit Well No. 113  
Unit N Sec. 26 Twp. 28N Rge. 6W Purchaser El Paso Natural Gas Company  
Casing 4 1/2" Wt. 11.6 I.D. 4.000 Set at 7905 Perf. 7308 To 7642  
Tubing 2 3/8" Wt. 4.70 I.D. 1.995 Set at 7616 Perf. Open To End  
Gas Pay: From 7642 To 7380 L 7616 xG .67 -GL 5102 Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single-Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 10/21/63 Packer 7623 Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

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

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) ( <del>0000000</del> ) Size	Press.	Diff.	Temp.	Press.	Temp.	Press.	Temp.	
			psig	$h_w$	$^{\circ}\text{F.}$	psig	$^{\circ}\text{F.}$	psig	$^{\circ}\text{F.}$	
SI						2 654				7-Days
1.		3/4"	217		65	217	65			3-Hrs.
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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		229	.9952	.9463	1.022	2.725
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> 9.402 (1-e<sup>-s</sup>) .310

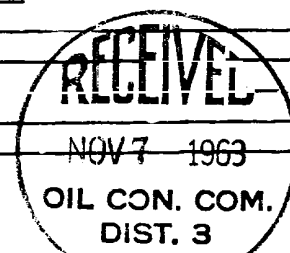
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2,666 P<sub>c</sub><sup>2</sup> 7107.5  
P<sub>w</sub> 506 P<sub>w</sub><sup>2</sup> 256.0

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.	229	52,441	25,620	656,384	203,479	256.0	685.1	506	
2.									
3.									
4.									
5.									

Absolute Potential: 2,801 MCFPD; n .75COMPANY Beta Development Co.ADDRESS 234 Petr. Club Plaza, Farmington, N. M.AGENT and TITLE George L. Hoffman, Production EngineerWITNESSED Danny RobertsCOMPANY El Paso Natural Gas Company

REMARKS

No casing pressure, production packer in hole.



## 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  $P_t$ .