

3-OCC  
1-H.L. Kendrick  
1-B. Parrish  
1-Comm. Pub. Lands  
2-Phillips (Hintze, Corbett)  
1-LDH, 1-TCA  
1-T. Cowan  
1-F

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BASIN DAKOTA Formation DAKOTA County Rio Arriba  
Initial X Annual          Special          Date of Test 8/11/64  
Company Beta Development Co. Lease San Juan 28-6 Well No. 115  
Unit M Sec. 3 Twp. 27 N Rge. 6 W Purchaser El Paso Natural Gas Co.  
Casing 4 1/2" Wt. 11.60 I.D. 4.042 Set at 7467 Perf. 7224 To 7428  
Tubing 2 3/8" Wt. 4.70 I.D. 1.995 Set at 7392 Perf. Open To End  
Gas Pay: From 7224 To 7428 L 7379 xG          -GL          Bar.Press. 12.0  
Producing Thru: Casing          Tubing X Type Well Single - Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 8/1/64 Packer          Reservoir Temp.         

OBSERVED DATA

Tested Through ~~(choke)~~ (Choke) ~~(choke)~~ Type Taps         

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) <del>(choke)</del> Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>2442</u>		<u>2516</u>		<u>7 Days</u>
1.		<u>3/4</u>	<u>294</u>		<u>76</u>	<u>294</u>	<u>76</u>	<u>1002</u>		<u>3 Hours</u>
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.	<u>12.3650</u>		<u>306</u>	<u>.9850</u>	<u>.9463</u>	<u>1.029</u>	<u>3,629</u>
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> 2528 P<sub>c</sub><sup>2</sup> 6390.8

P<sub>w</sub> 1014 P<sub>w</sub><sup>2</sup> 1028.2

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>1028.2</u>	<u>5362.6</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 4.137 MCFPD; n .75

COMPANY Beta Development Co.  
ADDRESS 234 Petr. Club Plaza, Farmington, New Mexico  
AGENT and TITLE George L. Hoffman, Production Engineer  
WITNESSED H. McAnally  
COMPANY El Paso Natural Gas Co.

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  $P_t$ .

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