

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea  
Initial X Annual \_\_\_\_\_ Special X Date of Test 7-23-26, 1963  
Company TEXACO Inc. Lease C. C. Fristoe "B" Well No. 2  
Unit F Sec. 30 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas Co.  
Casing 7" Wt. 20.0 I.D. 6.456 Set at 2920 Perf. Open Hole To \_\_\_\_\_  
Tubing 2-3/8 Wt. 4.70 I.D. 1.995 Set at 3112 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 2920 To 3130 L 3112 xG .699 -GL 2175 Bar.Press. 13.2  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single  
Date of Completion: Oct. 1, 1963 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (~~1000X~~) (~~1000X~~) (Meter) Type Taps Flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4	1.00	159	4.0	100	259	82	24
2.	4	1.00	189	7.8	102	234	83	24
3.	6	2.50	15	4.2	94	195	84	24
4.	6	2.50	15	8.8	95	146	84	24
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.	6.135	26.24	172.2	.9636	.9427	1.013	148.1
2.	6.135	39.71	202.2	.9618	"	1.016	224.4
3.	39.13	10.88	28.2	.9688	"	-	388.8
4.	39.13	15.75	28.2	.9680	"	-	562.4
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 132,400 cf/bbl.  
Gravity of Liquid Hydrocarbons 32.0 deg.  
P<sub>c</sub> P<sub>w</sub> Measured (1-e<sup>-s</sup>)

Specific Gravity Separator Gas .675  
Specific Gravity Flowing Fluid .699  
P<sub>c</sub> 356.2 P<sub>c</sub> 126.9

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.	304.2					92.54	34.36		.854
2.	293.2					85.97	40.93		.823
3.	262.2					68.75	58.15		.736
4.	228.2					52.07	74.83		.641
5.									

Absolute Potential: 960 MCFPD; n 1.00  
COMPANY TEXACO Inc.  
ADDRESS Box 1270, Midland, Texas.  
AGENT and TITLE F. W. Moore District Supervisor (Gas)  
WITNESSED \_\_\_\_\_  
COMPANY \_\_\_\_\_

## REMARKS

Well reclassified from oil well to gas well July 1, 1963.

## 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  $P_t$ .