

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS.

Pool Bumont Formation Yates County Lea  
Initial          Annual          Special X Date of Test 11-16-56  
Company Continental Oil Company Lease Meyer B-18 Well No. 2  
Unit C Sec. 18 Twp. 21S Rge. 36E Purchaser E. P. N. G.  
Casing 5 1/2 Wt. 17 I.D. 4.892 Set at 3760 Perf. 3180 To 3656  
Tubing None Wt.          I.D.          Set at          Perf.          To           
Gas Pay: From 3180 To 3676 L 3180 xG .675 -GL 2147 Bar.Press. 13.2  
Producing Thru: Casing X Tubing          Type Well Single  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 3-12-49 Packer None Reservoir Temp. 90°

## OBSERVED DATA

Tested Through (~~ROCK~~) (~~ROCK~~) (Meter) Type Taps Flange

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								904		72
1.	4	1.250	589	6.25				875		24
2.	4	1.250	603	20.25				861		24
3.	4	1.250	620	32.49				844		24
4.	4	1.250	632	55.50				817 *		24
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp} F}$	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.	9.643	61.34	602.2	.9896	.9427	1.064	587
2.	9.643	111.69	616.2	.9877	.9427	1.064	1,067
3.	9.643	143.41	633.2	.9905	.9427	1.067	1,377
4.	9.643	189.21	645.2	.9915	.9427	1.067	1,819
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio          cf/bbl.  
Gravity of Liquid Hydrocarbons          deg.  
F<sub>c</sub> .9583 (1-e<sup>-s</sup>) .137  
Specific Gravity Separator Gas           
Specific Gravity Flowing Fluid           
P<sub>c</sub> 917.2 P<sub>c</sub> 841.3

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.	888.2	788.9	.56	.31	.04	788.9	52.4	888.2	.97
2.	874.2	764.2	1.02	1.04	.14	764.3	77.0	874.2	.95
3.	857.2	734.8	1.32	1.74	.24	735.0	106.3	857.4	.93
4.	830.2	689.2	1.74	3.03	.42	689.6	151.7	830.4	.91 *
5.									

Absolute Potential: 7,200 MCFPD; n .79

COMPANY Continental Oil Company  
ADDRESS Box 427, Hobbs, New Mexico  
AGENT and TITLE W. D. Howard, Gas Tester  
WITNESSED [Signature]  
COMPANY         

## REMARKS

\* Insufficient draw-down due to small orifice.

Copies to (Direct):  
NMOC - 3 EWW HLJ RLA FTE EVB WDH

## 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  $P_t$ .