

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Summit Formation Queen County Lea

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9/6 - 13/57

Company Continental Oil Company Lease Meyer B-9 Well No. 2

Unit F Sec. 9 Twp. 21S Rge. 36E Purchaser E. P. N. G.

Casing 5 1/2 Wt. 17 I.D. \_\_\_\_\_ Set at 3673 Perf. 3385 To 3570

Tubing 2 Wt. 4.7 I.D. \_\_\_\_\_ Set at 3868 Perf. 3745 To 3784

Gas Pay: From 3385 To 3570 L 3385 xG .565 -GL 2251 Bar.Press. 13.2

Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well G. O. Dual

Date of Completion: 11-4-55 Packer 3582 Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. 90°

## OBSERVED DATA

Tested Through (~~PROVER~~) (~~CHOKE~~) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	( <del>PROVER</del> ) (Line) Size	( <del>CHOKE</del> ) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								958		72
1.	4	1.250	553	6.23	90			890		24
2.	4	1.250	528	21.62	80			764		24
3.	4	1.250	508	30.23	77			695		24
4.	4	1.250	545	32.21	78			611		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.	9.643	59.48		.9723	.9498	1.051	557
2.	9.643	108.15		.9813	"	1.050	1,021
3.	9.643	123.54		.9840	"	1.049	1,187
4.	9.643	144.09		.9831	"	1.053	1,366
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

F<sub>c</sub> 1.812 (1-e<sup>-s</sup>) 0.143

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 971.2 P<sub>c</sub> 943.2

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.	983.2	815.8	1.01	1.02	.15	816.0	127.2	903.3	.93
2.	777.2	604.0	1.85	3.42	.49	504.5	338.7	777.5	.80
3.	708.2	501.5	2.15	4.62	.68	502.2	441.0	708.7	.73
4.	624.2	389.6	2.48	6.15	.68	390.5	552.7	624.9	.64
5.									

Absolute Potential: 1,925 MCFPD; n .53

COMPANY Continental Oil Company

ADDRESS Box 427, Hobbs, New Mexico

AGENT and TITLE W. D. Howard, Gas Tester

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS

WMOCC-3 ENW HLL RLA FFE EVB WDH

Attach.

## 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  $P_t$ .