NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

ool Eumont Formation Queen County Lea

nitial ____ Annual ____ Special X Date of Test 1-27-61

ompany Continental Oil Company Lease SEMU Eumont Well No. 67

Unit K Sec. 24 Twp. 20S Rge. 37E Purchaser E.P.N.G.

Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 3900 Perf. 3608 To 3736

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3610 Perf. - To -

Gas Pay: From 3608 To 3736 L 3608 xG .671 -GL 2421 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-31-57 Packer None Reservoir Temp. 90°

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps Flange

No.	Flow Data ~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						519		519		72
1.	4	.750	203	27.04	42	430		504		24
2.	4	.750	212	39.69	52	435		495		24
3.	4	.750	291	44.89	52	439		489		24
4.	4	.750	270	79.21	53	433		472		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	3.435	76.46	216.2	1.0178	.9427	1.024	258.0
2.	3.435	94.54	225.2	1.0078	.9427	1.025	316.2
3.	3.435	116.86	304.2	1.0078	.9427	1.033	393.9
4.	3.435	149.77	283.2	1.0068	.9427	1.030	502.9
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl.

Gravity of Liquid Hydrocarbons - deg.

F_c 9.936 $(1-e^{-s})$ 0.153

Specific Gravity Separator Gas -

Specific Gravity Flowing Fluid -

P_c 532.2 P_c^2 283.2

No.	P_w ~~Pt~~ (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	517.2					267.5	15.7		.97*
2.	508.2					258.3	24.9		.95
3.	502.2	- - - -	-MEASURED-	- -		252.2	31.0		.94
4.	485.2					235.4	47.8		.91
5.									

Absolute Potential: 1,500 MCFPD; n .603

COMPANY Continental Oil Company

ADDRESS Box 427, Hobbs, New Mexico

AGENT and TITLE W. D. Howard, Test Engineer

WITNESSED J. B. Murray

COMPANY El Paso Natural Gas Company

REMARKS

*Insufficient drawdown due to tendency to freeze off at chokes.

CC: NMOCC (2) WAM REM (4) WDH File

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.