NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eunice Formation Queen County Lea

Initial X Annual Special Date of Test 5-18-59 to 5-22-59

Company Continental Oil Co. Lease State A 26 Well No. 1

Unit A Sec. 26 Twp. 19 S Rge. 36 E Purchaser E. P. N. G.

Casing 5 1/2 Wt. 17 I.D. 4.892 Set at 3794 Perf. 3748 To 3764

Tubing 2 1/2 Wt. 6.5 I.D. 1.995 Set at 3737 Perf. - To -

Gas Pay: From 3748 To 3764 L 2748 xG .630 -GL 1869 Bar.Press. 13.2

Producing Thru: Casing X Tubing Type Well Dual (Gas-Oil)
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1-29-49 Packer Yes Reservoir Temp. 98°

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	Temp. °F.	Casing Data: Press. psig	Temp. °F.	Duration of Flow Hr.
SI								753		72
1.	4.000	.750	538	6.25	76			725		24
2.	4.000	.750	537	19.80	70			687		24
3.	4.000	.750	543	38.44	70			649		24
4.	4.000	.750	535	60.47	70			607		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	58.48	551.2	.9850	.9393	1.057	197.1
2.	3.435	104.50	550.2	.9905	.9393	1.061	353.9
3.	3.435	146.30	556.2	.9905	.9393	1.062	496.0
4.	3.435	181.90	548.2	.9905	.9393	1.062	596.9
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl. Specific Gravity Separator Gas .630
Gravity of Liquid Hydrocarbons - deg. Specific Gravity Flowing Fluid -
F_c 2.507 $(1-e^{-s})$ ~~0.~~ .120 P_c 768.2 P_c^2 590.1

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	738.2	544.9	.4942	.2443	.0292	544.9	45.20	738.2	.9609
2.	700.2	490.3	.8872	.7872	.1100	490.4	99.70	700.3	.9116
3.	662.2	438.5	1.243	1.544	.2163	438.7	151.4	662.3	.8622
4.	620.2	384.6	~~1.752~~ 1.573	~~[illegible]~~	.4257	~~[illegible]~~ 384.9	205.5	620.4	.8075
5.									

Absolute Potential: 2,595 MCFPD; n .7520

COMPANY Continental Oil Co.

ADDRESS Box 427 - Hobbs, New Mexico

AGENT and TITLE W. D. Howard - Gas Tester [signature]

WITNESSED

COMPANY

REMARKS

cc: NMOCC - 3 cc's, Div., Dist., File
Earl Smith
El Paso Natural Gas Co.
Jal, N. M.
* Insufficient drawdown due to Orifice restriction.

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.