Hobbs OCC

NEW MEXICO OIL CONSERVATION COMMISSION

MAIN OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Eumont Formation Queen County Lea

Initial Annual Special X Date of Test 7-27-56

Company Continental Oil Company Lease State A-19 Well No. 1

Unit L Sec. 19 Twp. 19 Rge. 37 Purchaser E.P.N.G.

Casing 5 1/2 Wt. 17 I.D. 4.892 Set at 3834 Perf. 2599 To 3680

Tubing 2" Wt. I.D. Set at 3675 Perf. - To -

Gas Pay: From 2599 To 3390 L 2599 xG .680 -GL 1767 Bar.Press. 13.2

Producing Thru: Casing X Tubing Type Well Bradenhead

Date of Completion: 2-14-36 Packer - Single-Bradenhead-G. G. or G.O. Dual 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										
1.	4"	1.250	599	12.96	84			824		72
2.	4"	1.250	606	19.36	81			788		24
3.	4"	1.250	629	31.36	80			773		24
4.	4"	1.250	666	42.25	80			764		24
5.								754*		24

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.	9.643	81.48	512.2	.9777	.9393	1.055	761
2.	9.643	109.49	619.2	.9804	.9393	1.065	1035
3.	9.643	141.91	642.2	.9813	.9393	1.069	1348
4.	9.643	169.40	679.2	.9813	.9393	1.069	1610
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl.

Gravity of Liquid Hydrocarbons - deg.

F_c Not applicable $(1-e^{-s})$ Not applicable

3.03507 .115

Specific Gravity Separator Gas

Specific Gravity Flowing Fluid

P_c 837.2 P_c^2 700.9

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.	801.2	641.9	-	-	-	-	59.0	-	.957
2.	791.2	626.0	-	-	-	-	74.9	-	.945
3.	777.2	604.0	-	-	-	-	96.9	-	.928
4.	767.2	588.6	-	-	-	-	112.3	-	.916
5.	"	"	4.886	23.872	2.7452	591.34	109.5	772	.922

Absolute Potential: 9,900 MCFPD; n .99

COMPANY Continental Oil Company

ADDRESS Box 427, Hobbs, N.M.

AGENT and TITLE W. D. Howard, Gas Tester

WITNESSED -

COMPANY -

REMARKS

*Unable to obtain 30% draw down due to high gathering system pressure.

Initial ... this well.

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.