VII 1-15-63

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Morrow Sand County Eddy

Initial X Annual ______ Special ______ Date of Test 1/10-11/1963

Company Ralph Lowe Lease Indian Basin "A" Well No. 1 (Lower)

Unit J Sec. 22 Twp. 21S Rge. 23E Purchaser None

Casing 7 Wt. 26.0 I.D. 6.276 Set at 9385 Perf. 9118 To 9266

Tubing 2" EUE Wt. 4.70 I.D. 1.995 Set at 9053 Perf. ______ To ______

Gas Pay: From 9118 To 9266 L 9052 xG .608 -GL 5504 Bar.Press. 13.2

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

Date of Completion: 12-24-62 Packer Baker "D" 7290 Reservoir Temp. 171
Baker "D" 9050

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						2969				Over 72
1.	3.068	1.750	900	11.0	55	2857				6
2.	3.068	1.750	905	24.0	57	2773				6
3.	3.068	1.750	900	43.0	57	2651				6
4.	3.068	1.750	900	67.0	63	2515				6
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.	20.15	100.23		1.0048	.9975	1.083	2193
2.	20.15	148.45		1.0029	.9975	1.083	3241
3.	20.15	198.16		1.0029	.9975	1.083	4327
4.	20.15	247.35		.9971	.9975	1.081	5360
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 530,560 cf/bbl. Specific Gravity Separator Gas .603
Gravity of Liquid Hydrocarbons 53° @60 deg. Specific Gravity Flowing Fluid .7669
F_c 9.936 $(1-e^{-s})$ .315 P_c 2982.2 P_c^2 8893.5

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.	2870.2	8238.0	21.79	474.8	149.6	8387.6	505.9	2896.1	.9711
2.	2786.2	7762.9	32.20	1036.8	326.6	8089.5	804.0	2844.2	.9537
3.	2664.2	7098.0	42.99	1848.1	582.2	7680.2	1213.3	2771.3	.9293
4.	2528.2	6391.8	53.26	2836.6	893.5	7285.3	1608.2	2699.1	.9051
5.									

Absolute Potential: 20,000 MCFPD; n .763
COMPANY Ralph Lowe
ADDRESS P. O. Box 832, Midland, Texas
AGENT and TITLE Archie P. Lowe (signature) Archie P. Lowe, Petroleum Engineer
WITNESSED
COMPANY

REMARKS

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.