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.

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Red Hills Formation Wolfcamp County Lea

Initial ____ Annual ____ Special CAOF Date of Test 1-18-65

Company The Pure Oil Company Lease Red Hills Unit Well No. 1

Unit O Sec. 32 Twp. 25-S Rge. 33E Purchaser El Paso Natural Gas Company

Casing 6-5/8 Wt. 28# I.D. 5.666 Set at 16,952' Perf. 13,440' To 13,667'

Tubing 2-7/8 Wt. 6.5 I.D. 2.229 Set at 12,112 Perf. 12,079 To 12,086'

Gas Pay: From ____ To ____ L ____ xG ____ -GL ____ Bar.Press. 13.2 psia

Producing Thru: Casing ____ Tubing 2-7/8" Type Well Gas
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1-26-64 Packer 13,734' Reservoir Temp. 185

OBSERVED DATA

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

No.	Flow Data: (Prover) (Line) Size	Flow Data: (Choke) (Orifice) Size	Flow Data: Press. * psig	Flow Data: Diff. * h_w	Flow Data: Temp. °F.	Tubing Data: Press. psig	Tubing Data: Temp. °F.	Casing Data: Press. psig	Casing Data: Temp. °F.	Duration of Flow Hr.
SI										
1.	6.065"	2.25"	8.5	3.4	40	7382	46	800	72	7.25
2.	6.065"	2.25"	8.45	5.9	42	6676	49	950	72	8.00
3.	6.065"	3.25"	8.4	4.15	43	5512	68	1200	72	9.25
4.	6.065"	3.25"	8.5	5.2	60	4407	56	1325	72	12.50
5.	6.065"	3.25"	8.4	6.2	54	3243	83	1450	72	33.0

* 100" x 1000 psi meter with L-10 charts used

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.	31.47	28.9	722	1.0198	.9660	1.085	3,073.8
2.	31.47	49.86	713	1.0178	"	1.085	5,292.7
3.	68.36	34.86	705	1.0168	"	1.085	8,030.3
4.	68.36	44.20	722	1.0000	"	1.073	9,902.9
5.	68.36	52.08	705	1.0058	"	1.078	11,790.8

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 23,040 cf/bbl. Specific Gravity Separator Gas .643

Gravity of Liquid Hydrocarbons 60° deg. Specific Gravity Flowing Fluid ____

P_c ____ $(1-e^{-s})$ ____ ** P_c 10,148 P_c^2 102,982 x 103

** Pressures measured with bottom hole pressure bomb

No.	** P_w P_t (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.	9398					88,322	14,660		.926
2.	8666					71,100	27,882		.854
3.	7544					56,912	46,070		.743
4.	6518					42,484	60,498		.643
5.	5507					30,327	72,655		.543

Absolute Potential: 15,750 MCFPD; n .84

COMPANY The Pure Oil Company

ADDRESS Box 671 - Midland, Texas

AGENT and TITLE W. B. Ross - Petroleum Engineer

WITNESSED ____

COMPANY ____

REMARKS