NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

DEC 13 AM 8:48

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea

Initial ____ Annual ____ Special X Date of Test 12-31-56= 1-4-57

Company King, Warren & Dye Lease Toby Well No. 2

Unit K Sec. 7 Twp. 24S Rge. 37E Purchaser EPNG

Casing 5½ Wt. ____ I.D. ____ Set at 3423 Perf. 2910 To 3030

Tubing 2 Wt. ____ I.D. ____ Set at ____ Perf. ____ To ____

Gas Pay: From 2910 To 3030 L 2910 xG .655 -GL 1906 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing ____ Type Well G.O. Dual

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

Date of Completion: 7-25-47 Packer No Reservoir Temp. ____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps ____

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								892		72
1.	4	2,000	846	4.41	89			855		24
2.	4	2,000	826	9.61	85			839		24
3.	4	2,000	774	27.56	80			794		24
4.	4	2,000	690	69.72	76			721*		24
5.										

*Not enough draw down - choke restriction

FLOW CALCULATIONS

No.	Coefficient Fig. (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.	25.58	61.55		.9732	.9571	1.077	1,579
2.	25.58	89.79		.9768	.9571	1.077	2,313
3.	25.58	147.28		.9813	.9571	1.072	3,793
4.	25.58	221.39		.9850	.9571	1.070	5,713
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.

Gravity of Liquid Hydrocarbons ____ deg.

F_c 1.712 $(1-e^{-s})$ .123

Specific Gravity Separator Gas ____

Specific Gravity Flowing Fluid ____

P_c 905.2 P_c^2 819.4

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.	868.2	753.8	2.70	7.29	.9	754.7	64.7	868.7	.96
2.	852.2	726.2	3.96	15.68	1.9	728.1	91.3	853.3	.94
3.	807.2	651.6	6.49	42.12	5.2	656.8	162.6	810.4	.90
4.	734.2	539.0	8.78	95.65	11.8	550.8	268.6	742.2	.82
5.									

Absolute Potential: 14,800 MCFPD; n .839

COMPANY El Paso Natural Gas Co.

ADDRESS Box 1492, El Paso, Texas

AGENT and TITLE ____

WITNESSED Test conducted by Edward Mabe

COMPANY El Paso Natural Gas 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.