NEW MEXICO OIL CONSERVATION COMMISSION

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 **10-24/10-27/1959**

Company **Clara T. Scott And First National Bank in Dallas, Trustee, U-W-O Paul P. Scott** Lease **Wells B-12** Well No. **2**

Unit **A** Sec. **12** Twp. **25** Rge. **36** Purchaser **El Paso Natural Gas Company**

Casing **5½"** Wt. ___ I.D. ___ Set at **2809** Perf. **Open Hole** To ___

Tubing **2"** Wt. **4.7#** I.D. ___ Set at **2795** Perf. ___ To ___

Gas Pay: From **2890** To **3032** L **2795** xG **.6550** -GL **1831** Bar.Press. **13.2**

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

Date of Completion: **7-14-1952** Packer **None** Reservoir Temp. ___

OBSERVED DATA

Tested Through (~~Prover~~) (~~Choke~~) (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	--	--	--	--	--	365	--	366	--	72
1.	4	.500	335	18.49	72	336	--	336	--	24
2.	4	.500	251	49.70	65	254	--	320	--	24
3.	4	.500	247	67.24	69	249	--	313	--	24
4.	4	.500	282	68.06	72	284	--	307	--	24
5.										

FLOW CALCULATIONS

No.	Coefficient FLG. (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.	1.525	80.24	348.2	.9887	.9571	1.033	119.6
2.	1.525	114.6	264.2	.9952	.9571	1.025	170.7
3.	1.525	132.3	260.2	.9915	.9571	1.024	196.0
4.	1.525	141.7	295.2	.9887	.9571	1.027	210.0
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ___ cf/bbl. Specific Gravity Separator Gas ___

Gravity of Liquid Hydrocarbons ___ deg. Specific Gravity Flowing Fluid ___

P_c **Measured** $(1-e^{-s})$ ___ P_c **379.2** P_c^2 **143.8**

No.	~~P_x~~ ~~P_x~~ (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.	349.2					121.9	21.9		.9180
2.	333.2					111.0	32.8		.8743
3.	326.2	--	--	Measured	--	106.4	37.4		.8552
4.	320.2					102.5	41.3		.8388
5.									

Absolute Potential: **625** MCFPD; n **.883**

COMPANY **Clara T. Scott & First National Bank in Dallas, Trustee, U-W-O Paul P. Scott**

ADDRESS **P. O. Box 6031, Dallas 22, Texas**

AGENT and TITLE **Robert B. Ray, Oil Engineer** Robert B. Ray

WITNESSED **Earl G. Smith**

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.