Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Eumont**   Formation **Queen**   County **Lea**

Initial **X**   Annual_____   Special_____   Date of Test **8-24-56**

Company **The Texas Company**   Lease **State of N. M. "J"**   Well No. **3**

Unit **Y** Sec. **24** Twp. **19-S** Rge. **36-E** Purchaser **Permian Basin Pipe Line Co.**

Casing **5 1/2** Wt. **14** I.D. **5.012** Set at **3565** Perf._____ To_____

Tubing **2 3/8** Wt. **4.70** I.D. **1.995** Set at **3573** Perf. **3564** To **3567**

Gas Pay: From **3565** To **3800** L **3564** xG **.670** =GL **2388** Bar.Press. **13.2**

Producing Thru: Casing_____ Tubing **X** Type Well **Single**

Date of Completion: **7-9-54** Packer_____ Single-Bradenhead-G. G. or G.O. Dual   Reservoir Temp._____

OBSERVED DATA

CO_2 = 1.64%   **N_2 = 1.78%**

Tested Through (Prover) (Choke) (Meter)   Type Taps **Pipe**

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						1005.2		1005.7		72 1/2
1.	4	2.00	456.7	33.2	71	740.0		852.0		23 3/4
2.	4	2.00	455.3	32.2	70	723.8		832.7		24
3.	4	2.00	451.4	10.5	73	880.5		906.6		23 3/4
4.	4	2.00	442.3	2.9	80	944.5		951.3		24 1/4
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.	29.92	124.90	469.9	.9896	.9463	1.042	3,647
2.	29.92	122.80	468.5	.9905	.9463	1.042	3,588
3.	29.92	69.84	464.6	.9877	.9463	1.042	2,035
4.	29.92	36.35	455.5	.9813	.9463	1.038	1,048
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio_____ cf/bbl.   Specific Gravity Separator Gas_____

Gravity of Liquid Hydrocarbons_____ deg.   Specific Gravity Flowing Fluid_____

F_c_____ $(1-e^{-s})$_____ P_c **1014.9** P_c^2 **1038.2**

No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-s})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	865.2					748.6	289.6		.85
2.	845.9					715.5	322.7		.83
3.	919.8					846.0	192.2		.90
4.	964.5					930.3	107.9		.95
5.									

Absolute Potential: **13,010** MCFPD; n **1.0 (Limited)**

COMPANY **The Texas Company**

ADDRESS **Box 1270, Midland, Texas**

AGENT and TITLE **L. I. Baker, District Gas Man** _X L. I. Baker_

WITNESSED **Harold E. Barrett**

COMPANY **Permian Basin Pipe Line Company**

REMARKS

This is a retest. Due to poor point alignment and slope (n) in excess of 1.00, the slope (n) was drawn through the high rate of flow with a slope of 1.00 in accordance with the instructions in the Manual.

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.