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 11-12-56

Company El Paso Natural Gas Company Lease Wells Well No. 4

Unit F Sec. 5 Twp. 25 S Rge. 37 E Purchaser El Paso Natural Gas Company

Casing 5 1/2 Wt. 15.5 I.D. 4.95 Set at 3354 Perf. 3155 To 3170

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3180 Perf. ____ To ____

Gas Pay: From 3155 To 3170 L 3180 xG .650 -GL 2067 Bar.Press. 13.2

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

Date of Completion: 6-1-56 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						618		621		72
1.	4	1.250	220	29.16	53	345		360		24
2.	4	1.250	219	31.16	60	410		420		6
3.	4	1.250	203	12.25	58	482		488		18
4.	4	1.250	201	6.25	59	522		525		5
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour) Fig.	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	9.643	82.46		1.0068	.9608	1.024	787
2.	9.643	70.09		1.0000	.9608	1.027	654
3.	9.643	51.47		1.0090	.9608	1.022	498
4.	9.643	36.59		1.0010	.9608	1.022	356
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c ____ $(1-e^{-s})$ ____

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 634.2 P_c^2 402.2

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.	350.2	128.3				139.3	262.9	373.2	.59
2.	389.2	179.1				187.7	214.5	433.2	.68
3.	495.2	245.2				251.2	151.0	501.2	.79
4.	535.2	286.4				289.7	112.5	530.2	.85
5.									

Absolute Potential: 1,140 MCFPD; n .854

COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1384, Jal, New Mexico
AGENT and TITLE R. T. Wright - Petroleum Engineer
WITNESSED Jack T. Litchfield & Herbert H. Kerby
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.