NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates-7-Rivers County Lea

Initial ____ Annual ____ Special X Date of Test 4-25-1958

Company El Paso Natural Gas Company Lease Wells Well No. 2

Unit G Sec. 4 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 5½" Wt. 15.5 I.D. 4.976 Set at 3147 Perf. 2958 To 3094

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 3096 Perf. ____ To ____

Gas Pay: From 2958 To 3094 L 3096 xG .665 -GL 2059 Bar.Press. 13.2

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

Date of Completion: 5-22-1956 Packer None Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps Flg

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						627		627		72
1.	4"	1.250	576	4.00	77	619		622		24
2.	4"	1.250	562	12.25	77	610		616		24
3.	4"	1.250	567	16.00	70	604		614		24
4.	4"	1.250	567	22.09	71	591		608		24
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.	9.643	48.54	589.2	.9840	.9498	1.056	461
2.	9.643	83.93	575.2	.9840	.9498	1.056	798
3.	9.643	96.33	580.2	.9905	.9498	1.057	924
4.	9.643	113.19	580.2	.9896	.9498	1.057	1084
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 640.2 P_c^2 409.9

No.	~~Pw~~ 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.	632.2	399.7				403.5	6.4		99.2
2.	623.2	388.4				395.9	14.0		98.2
3.	617.2	380.4	———	Measured	———	393.4	16.5		97.9
4.	604.2	365.1				385.9	24.0		96.9
5.									

Absolute Potential: 6,900 MCFPD; n .637

COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1384, Jal, New Mexico
AGENT and TITLE R. T. Wright, Petroleum Engineer R. T. Wright
WITNESSED J. O. Whitling, J. R. Murray
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.