NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

HOBBS OFFICE OCC

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea

Initial ____ Annual ____ Special X Date of Test 3-1-57

Company El Paso Natural Gas Company Lease Elliott Well No. 1

Unit F Sec. 17 Twp. 26 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 7 Wt. 20 I.D. ____ Set at 2880 Perf. ____ To ____

Tubing 2 Wt. 4.7 I.D. ____ Set at 2954 Perf. ____ To ____

Gas Pay: From 2935 To 2960 L 2954 xG .660 -GL 1950 Bar.Press. 13.2

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

Date of Completion: 10-12-53 Packer None Reservoir Temp. ____

OBSERVED DATA

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

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						650				72
1.	4	1.250	533	4	74	633				24
2.	4	1.250	532	16	60	610				24
3.	4	1.250	527	27	64	590				24
4.	4	1.250	532	57.8	65	543				24
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (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	46.73		.9868	.9535	1.054	447
2.	9.643	43.38		1.0000	.9535	1.059	909
3.	9.643	120.84		.9962	.9535	1.059	1172
4.	9.643	177.42		.9952	.9535	1.055	1713
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c 9.936 $(1-e^{-s})$ 0.126

Specific Gravity Separator Gas .660
Specific Gravity Flowing Fluid ____
P_c 663.2 P_c^2 439.8

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.	646.2	417.6	4.44	19.7	2.48	420.1	19.7	20~~4~~.96	.97
2.	623.2	388.4	9.03	81.5	10.27	398.7	41.1	19~~0~~.67	.94
3.	603.2	363.9	11.64	135.5	17.07	380.9	58.9	19~~5~~.16	.91
4.	556.2	309.4	17.02	289.7	36.50	345.9	93.9	18~~5~~.98	.84
5.									

Absolute Potential: 5,665 MCFPD; n .771
COMPANY El Paso Natural Gas Company
ADDRESS Box 1384 - Jal, New Mexico
AGENT and TITLE R. T. Wright R. T. Wright - Petroleum Engineer
WITNESSED H. H. Kerby
COMPANY El Paso Natural Gas Company

REMARKS

ELVIS A. UTZ
GAS ENGINEER

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.