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 Moberly "C" Well No. 3

Unit E Sec. 21 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 5½" Wt. 17.0 I.D. ____ Set at 3097 Perf. ____ To ____

Tubing 2" Wt. 4.7 I.D. ____ Set at 3130 Perf. ____ To ____

Gas Pay: From 3064 To 3186 L 3097 xG .695 -GL 2152 Bar.Press. 13.2

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

Date of Completion: 4-11-1958 Packer None Reservoir Temp. ____

OBSERVED DATA

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

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						520		607		72
1.	4"	1.500	530	2.85	72	506		571		24
2.	4"	1.500	505	4.00	65	498		506		24
3.	4"	1.500	518	4.80	66	508		502		24
4.	4"	1.500	534	7.89	69	507		537		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.	11.99	34.25	543.2	.9857	.9258	1.061	376
2.	11.99	30.38	518.2	.9878	.9258	1.061	343
3.	11.99	47.84	531.2	.9863	.9258	1.060	484
4.	11.99	61.98	547.2	.9845	.9258	1.060	619
5.							

PRESSURE CALCULATIONS

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

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

F_c 1.038 $(1-e^{-s})$ .138 P_c 620.8 P_c^2 385.6

No.	P_w (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.	538.2	311.3	.853	.728	.101	311.1	73.2	538.1	86.1
2.	519.2	269.6	1.189	1.414	.196	269.6	115.8	519.1	83.4
3.	536.2	286.4	1.174	1.378	.190	286.6	98.8	535.4	86.0
4.	550.2	302.7	1.538	2.365	.328	302.8	82.6	550.5	88.5
5.									

Absolute Potential: 2,850 MCFPD; n .771 *

COMPANY El Paso Natural Gas Company

ADDRESS P. O. Box 1356, Jal, New Mexico

AGENT and TITLE R. T. Wright - Petroleum Engineer R. T. Wright

WITNESSED J. B. Murray & J. O. Whitling

COMPANY El Paso Natural Gas Company

REMARKS

* No Point alignment. Average Jalmat slope of .771 drawn through the highest rate of flow.

This is a corrected copy of test previously sent out.

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.