NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS 1958 JUN 17 AM 10 19

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 K Sec. 21 Twp. 26 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 3104 To 3126 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

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

OBSERVED DATA

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

No.	~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Flow Data 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						519		607		72
1.	4"	1.500	530	2.25	72	506		571		24
2.	4"	1.500	505	4.00	45	498		506		24
3.	4"	1.500	518	4.20	66	502		522		24
4.	4"	1.500	514	7.29	60	507		537		24
5.										

FLOW CALCULATIONS

No.	Coefficient Flg. (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.	13.99	34.95	543.2	.9887	.9292	1.061	476
2.	13.99	45.52	518.2	.9952	.9292	1.058	623
3.	13.99	47.24	531.2	.9943	.9292	1.062	648
4.	13.99	61.94	527.2	.9915	.9292	1.062	849
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ______
Specific Gravity Flowing Fluid ______
P_c 620.2 P_c^2 384.6

No.	P_w ~~Pt~~ (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.	584.2					341.3	43.3		94.1
2.	519.2					269.6	115.0		83.7
3.	535.2		-------	MEASURED	-------	286.4	98.2		86.3
4.	550.2					302.7	81.9		88.5
5.									

Absolute Potential: 2,800 MCFPD; n .771 * Average Jalmat Slope

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. B. Murray & J. C. Whitling
COMPANY El Paso Natural Gas Company

REMARKS

* No point alignment. Average Jalmat Slope of .771 drawn thru highest rate of flow.

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.