NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea

Initial ______ Annual ______ Special X Date of Test 8-20-56 to 8-24-56

Company El Paso Natural Gas Company Lease Shell State Well No. 7

Unit K Sec. 32 Twp. 20 S Rge. 37 E Purchaser El Paso Natural Gas Company

Casing 5½ Wt. 15.5 I.D. ______ Set at 3314 Perf. ______ To ______

Tubing 2 Wt. 4.7 I.D. ______ Set at 3415 Perf. ______ To ______

Gas Pay: From 3314 To 3428 L ______ xG 0.675 -GL ______ Bar.Press. 13.2

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

Date of Completion: 8-31-54 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	Temp. °F.	Casing Data: Press. psig	Temp. °F.	Duration of Flow Hr.
SI						971		971		72
1.	4"	1.750	599	15.2	66	927		959		24
2.	4"	1.750	600	36.0	64	890		955		24
3.	4"	1.750	642	65.6	66	812		944		24
4.	4"	1.750	635	70.6	67	795		942		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.	19.27	96.46	[illegible]	.9942	.9427	1.066	[illegible]57.3
2.	19.27	[illegible]8		[illegible]		1.068	2871.7
3.	19.27	201.32	[illegible]	.9943		1.069	4003.1
4.	19.27	213.92	[illegible]	[illegible]		1.069	4126.4
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 [illegible] P_c^2 968.65

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.	972.2					945.17	23.48		.9878
2.	968.2					[illegible]	31.24		.9837
3.	957.2					[illegible]	52.42		.9726
4.	955.2					912.41	56.24		.9705
5.									

Absolute Potential: 5[illegible] MCFPD; n .[illegible]

COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1384; Jal, New Mexico
AGENT and TITLE R. T. Wright (signature) R. T. Wright - Petroleum Engineer
WITNESSED Earl G. Smith
COMPANY El Paso Natural Gas Company

REMARKS

Poor point alignment on this test. Unable to obtain 30% draw down due to choke size up-stream of meter run.
Test No. 1

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.