NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1956 SEP 14 AM 9:54

Pool Eumont Formation Queens County Lea

Initial X Annual ______ Special ______ Date of Test 7-14-56

Company R. B. [illegible], Jr. Lease [illegible] State Well No. 2

Unit E Sec. 17 Twp. [illegible]S Rge. [illegible] Purchaser Permian Basin Pipeline Company

Casing 7" Wt. [illegible]# I.D. 6.366" Set at 37[illegible]7' Perf. 3347' To [illegible]

Tubing [illegible]-1/2" Wt. 6.5# I.D. [illegible]" Set at [illegible] Perf. 35[illegible]7' To 3517'

Gas Pay: From 3347' To 3517' L 35[illegible]7' xG 0.665 -GL [illegible]332' Bar.Press. 13.2

Producing Thru: Casing ______ Tubing X Type Well Single Completion

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 4-1[illegible]-37 Packer ______ Reservoir Temp. ______

CO_2 2.54% N_2 1.3[illegible]%

OBSERVED DATA

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

	Flow Data					Tubing Data		Casing Data		
No.	~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						[illegible].2				72-1/4 Hr. S.I.
1.	4"	1.50"	[illegible]62.[illegible]	6.[illegible]	1[illegible]2	[illegible]84.8				24 Hrs.
2.	4"	1.50"	467.3	14.3	[illegible]3	[illegible]30.5				24 Hrs.
3.	4"	1.50"	475.6	25.9	70	756.7				24 Hrs.
4.	4"	1.50"	[illegible]51.[illegible]	42.[illegible]	64	67[illegible].3				24 Hrs
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.	15.26	56.87		[illegible].[illegible]61[illegible]	0.[illegible]	1.033	7[illegible]8
2.	15.26	[illegible]2.[illegible]9		0.[illegible]726	0.[illegible]08	1.03[illegible]	1222
3.	15.26	11[illegible].5		[illegible].[illegible]05	0.[illegible]	1.0[illegible]3	1[illegible]5
4.	15.[illegible]	1[illegible]1.[illegible]		0.[illegible]62	0.[illegible]498	1.046	212[illegible]
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.

Gravity of Liquid Hydrocarbons ______ deg.

F_c 5.[illegible]66 $(1-e^{-s})$ 0.14[illegible]

Specific Gravity Separator Gas ______

Specific Gravity Flowing Fluid ______

P_c [illegible]2.4 P_c^2 [illegible]4.[illegible]

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.	[illegible].0	[illegible]06.4	4.622	21.36	3.161	[illegible]9.6	[illegible]75.3	8[illegible].[illegible]	.91
2.	843.7	711.[illegible]	7.16[illegible]	51.[illegible]8	7.[illegible]04	71[illegible].4	265.5	[illegible].2	.[illegible]5
3.	76[illegible].[illegible]	592.7	[illegible].884	[illegible]7.69	14.46	6[illegible]7.2	377.7	77[illegible].2	.7[illegible]
4.	[illegible]83.5	[illegible]67.2	12.4[illegible]	156.0	23.[illegible]	490.3	40[illegible].6	70[illegible].2	.71
5.									

Absolute Potential: 3960 MCFPD; n 0.90

COMPANY R. B. [illegible], Jr

ADDRESS [illegible] Box [illegible], Big Spring, Texas

AGENT and TITLE [illegible]

WITNESSED /s/ H. E. Barrett

COMPANY Permian Basin Pipeline 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.