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 __X__ Special _____ Date of Test __5-4/5-59__

Company __Anderson-Prichard Oil Corporation__ Lease __Britt "B"__ Well No. __1__

Unit __N__ Sec. __5__ Twp. __20 S__ Rge. __37 E__ Purchaser __Permian Basin Pipe Line Company__

Casing __9-5/8"__ Wt. __40.0#__ I.D. __8.835"__ Set at __2437'__ Perf. __Open Hole__ To _____

Casing __7.0"__ Wt. __24.0#__ I.D. __6.336"__ Set at __3700'__ Perf. __--__ To _____

Gas Pay: From __2585'__ To __2690'__ L __2585'__ xG __0.705__ -GL __1822__ Bar.Press. __13.2__

Producing Thru: Casing __X__ Tubing _____ Type Well __Bradenhead__

Date of Completion: __4-27-57__ Packer __--__ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. _____

CO_2 = 1.81% N_2 = 10.52% OBSERVED DATA

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

No.	(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								931.9		71.50
1.	2.00 x 4		407.0	8.2	82			766.8		3.00
2.	2.00 x 4		402.4	16.4	79			705.0		3.00
3.	2.00 x 4		410.2	28.0	62			631.1		3.00
4.	2.00 x 4		415.4	41.3	62			568.6		3.00
5.	2.00 x 4		412.2	46.1	60			594.3		24.00

FLOW CALCULATIONS

No.	Coefficient MCF (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.	29.92	58.70	420.2	0.9795	0.9225	1.028	1631
2.	29.92	82.56	415.6	0.9822	0.9225	1.027	2299
3.	29.92	108.9	423.4	0.9981	0.9225	1.032	3096
4.	29.92	133.0	428.6	0.9981	0.9225	1.032	3781
5.	29.92	140.0	425.4	1.0000	0.9225	1.032	3988

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio __Dry gas__ cf/bbl.
Gravity of Liquid Hydrocarbons __None__ deg.
F_c __No Friction__ $(1-e^{-S})$ _____

Specific Gravity Separator Gas __0.705__
Specific Gravity Flowing Fluid __None__
P_c __931.9__ P_c^2 __868.4__

No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2$ $(1-e^{-S})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	780.0	608.4				608.4	260.0		.8369
2.	718.0	515.8				515.8	352.6		.7705
3.	646.3	417.7				417.7	450.7		.6935
4.	581.8	338.5				338.5	529.9		.6243
5.	607.5	369.1				369.1	499.3		.6519

Absolute Potential: __6796__ MCFPD; n __1.00 Limited__

COMPANY __Anderson-Prichard Oil Corporation__
ADDRESS __Box 196, Midland, Texas__
AGENT and TITLE __Tested by Permian Basin Pipe Line Company__
WITNESSED __None__
COMPANY _____

REMARKS

Deviation factor calculated from Interstate Oil Compact Committee method of determining super compressibility as authorized by Mr. E. A. Utz for the New Mexico Oil Conservation Commission. Resulting slope in excess of 1.00; therefore a slope of 1.00 was drawn through the highest rate of flow data point to be submitted to the Commission.

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.