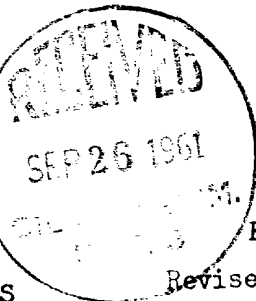


NEW MEXICO OIL CONSERVATION COMMISSION



Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool UNDISTED P.C. Formation P.C. County PIC ARBIA
Initial x Annual _____ Special _____ Date of Test 2222 4/20/61
Company CHAR ALAN OIL CO. Lease DUFF COVT. Well No. 1
Unit _____ Sec. 54 Twp. 24 Rge. 1 Purchaser _____
Casing 1 1/2 Wt. _____ I.D. _____ Set at 3109 Perf. 3020 To 3029
Tubing _____ Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 3020 To 3029 L 3020 xG .65 -GL 1989 Bar.Press. _____
Producing Thru: Casing x Tubing _____ Type Well _____
Date of Completion: _____ Packer _____ Reservoir Temp. _____
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.								870		
2.	2"	1/8 3/4	861	50				861		6 hr
3.		3/8	677	60				677		11hr
4.		1/2	465	60				465		8 hr
5.		3/4	320	60				310		6 hr

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.	.3418		873	1.0098	.9608	1.105	317
3.	3.0691		689	1.0000	.9608	1.078	2,126
4.	1.5233		477	1.0000	.9608	1.050	2657
5.	12,8023		322	1.0000	.9608	1.032	3,895

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.660 (1-e^{-s}) 0.120

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 882 P_c² 777m

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	P _w P _c
1.	873	692.1	.526	.279	.0357	692.13	85		
2.	689	474.1	3.540	12.531	1.603	476	301		
3.	477	226.3	4.430	19.618	2.488	229	548		
4.	322	103.6	6.475	41.93	5.367	109	668		
5.									

Absolute Potential: 4,600 MCFPD; n .83356

COMPANY WARD AND JAMISON ENGR CO.
ADDRESS 1028 35th, FARMINGTON, N. M.
AGENT and TITLE PAT JAMISON
WITNESSED _____
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.

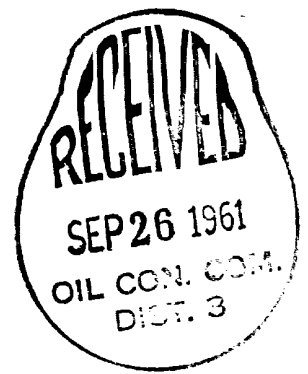
F_g = Gravity correction factor.

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 .



SHAR - ALAN O. L. CO.
No 1 Duff - Govt
4/20/61
Rio Arriba Co, N. Mex

$P_c^2 - P_w^2$ (Thousands)

ADP 4,600 MCF/D

$$\begin{aligned} Q_{15.4} \log &= 1.2609 \\ Q_{2.2} \log &= 0.3423 \\ N &= 0.83356 \end{aligned}$$

$Q = \text{MCF/Day}$