

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates - 7 Rivers County Lee
Initial x Annual _____ Special _____ Date of Test 8-30-57
Company Cities Service Oil Lease State H Well No. 2
Unit H Sec. 17 Twp. 22 Rge. 36 Purchaser El Paso Natural Gas
Casing 5 1/2 Wt. 15 I.D. _____ Set at 3691 Perf. 3470 To 3585
Tubing 2 Wt. 4.7 I.D. _____ Set at 3644 Perf. _____ To _____
Gas Pay: From 3470 To 3585 L 2256 xG .650 -GL _____ Bar.Press. 13.2
Producing Thru: Casing x Tubing _____ Type Well G.O. Dual
Re- _____ Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 8-30-57 Packer 3644 Reservoir Temp. _____

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								714		
1.	4	2.000	57	27"	75			693		3
2.	4	2.000	66	90"	74			670		3
*3.	2	1.375	61		80			632		3
*4.	2	1.375	86		75			584		3
*5.	2	1.375	84		77			564		24

* Volume Measured w/Critical Flow Prover 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.	25.58	39.23		.9859	.9603		951
2.	25.58	77.07		.9868	.9603		1869
3.	13.8286		74.2	.9813	.9603		3066
4.	13.8286		99.2	.9859	.9603		4119
5.	13.8286		97.2	.9840	.9603		4028

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 2.835 (1-e^{-s}) 0.144

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 727.2 P_c² 528.8

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.	706.2	498.7	26.96	7.27	.104	498.8	30.0		
2.	683.2	466.8	52.99	28.08	.404	467.2	61.6		
3.	645.2	416.3	86.92	75.55	1.09	417.4	114.2		
4.	597.2	356.6	116.77	136.35	1.96	358.6	170.2		
5.	577.2	333.2	114.19	130.39	1.88	335.1	173.7		

Absolute Potential: 9,900 MCFPD; n .900COMPANY Cities Service Oil CompanyADDRESS Box 97, Hobbs, New MexicoAGENT and TITLE E. H. Furray, Jr., Petroleum EngineerWITNESSED H. H. KerbyCOMPANY El Paso Natural Gas 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 .