

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bumont Formation Queen County LeaInitial _____ Annual X Special _____ Date of Test 9-30-56Company Cities Service Oil Company Lease _____ State ND Well No. 3Unit A Sec. 32 Twp. 21S Rge. 36E Purchaser Permian Basin Pipeline Co.Casing 7" Wt. 23# I.D. 6.366" Set at 3810' Perf. 3243' To 3610'Tubing 2" Wt. 4.7# I.D. 1.995 Set at 3737.12 Perf. _____ To _____Gas Pay: From 3243 To 3610 L 3243 xG .670 -GL 2173 Bar.Press. 13.2Producing Thru: Casing X Tubing _____ Type Well Single

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

Date of Completion: 11-22-55 Packer _____ 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								954.5		73 hr. SI
1.	4	1.75	471.4	11.3	73			897.6		22 1/2
2.	4	1.75	469.6	20.0	63			861.2		24
3.	4	1.75	471.2	28.1	64			811.8		23 3/4
4.	4	1.75	461.6	42.4	63			750.5		23 3/4
5.										

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.	21.69	74.00	484.6	0.9877	0.9463	1.046	1569
2.	21.69	98.26	482.8	0.9971	0.9463	1.049	2109
3.	21.69	116.7	484.4	0.9962	0.9463	1.050	2506
4.	21.69	141.9	474.8	0.9971	0.9463	1.049	3046
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c .740 (1-e^{-s}) .139Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 954.5 P_c 936.4
967.7

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.	690.9					829.8	106.4		
2.	622.7					764.9	171.5		
3.	578.1					681.1	255.3		
4.	539.0					583.9	352.5		
5.									

Absolute Potential: 5263 MCFPD; n .56COMPANY Permian Basin Pipeline Co.ADDRESS Hobbs, New MexicoAGENT and TITLE R. L. West, Gas EngineerWITNESSED E. H. Furrey, Jr.COMPANY Cities Service Oil Company

REMARKS

VIS A. UTZ
GAS ENGINEER

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 .

COMPANY : Cities Service Oil Company
 WELL : State "D" #3
 LOCATION: A, 32-21S-36E
 COUNTY : Lea
 DATE : 9-30-56

