

NEW MEXICO OIL CONSERVATION COMMISSION

MAIN OFFICE 000

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Basin Formation Dakota 1963 NOV 13 AM 11:12 County McArthurInitial X Annual Special Date of Test 11-6-63Company J. Gregory Merriam & Associates Lease Federal Unit 34 Well No. 3Unit Sec. 34 Twp. 25-N Rge. 6-W Purchaser El Paso Natural Gas Co.Casing 4-1/2 Wt. 11.6 I.D. 4.000 Set at 6712 Perf. 6518 To 6662Tubing 2" Wt. 4.7 I.D. 1.925 Set at 6504 Perf. 6561 To 6563Gas Pay: From 6518 To 6662 L 6590 xG 0.665 -GL 4382 Bar.Press. 12Producing Thru: Casing Tubing X Type Well Single

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

Date of Completion: 10-25-63 Packer Reservoir Temp. 165°

OBSERVED DATA

Tested Through (3033) (Choke) (3033) Type Taps

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2322		2317		
1.		3/4	383		72	383	72	1242		3 hrs.
2.										
3.										
4.										
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.	12.365		395	0.9887	0.9498	1.039	4765
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c (1-e⁻⁸)Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 2334 P_c 5447.5

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸)	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w / P _c
1.						1572.5	3875		0.537
2.									
3.									
4.									
5.									

Absolute Potential: 6152 MCFPD; n 0.75COMPANY J. Gregory Merriam & AssociatesADDRESS P. O. Box 507, Farmington, N. M.AGENT and TITLE J. Gregory Merriam, OperatorWITNESSED J. Gregory MerriamCOMPANY

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 .