

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinberry Formation Upper Yeso County Lea
Initial x Annual - Special - Date of Test 10-21-58
Company Magnolia Petroleum Company Lease J. N. Carson Well No. 2
Unit H Sec. 33 Twp. 21S Rge. 37E Purchaser Permian Basin Pipeline Company
Casing 7" Wt. 23# I.D. 6.366 Set at 7250 Perf. 5473 To 5700
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 5696 Perf. open end To
Gas Pay: From 5473 To 5700 L 5696 xG .682 -GL 3885 Bar.Press. 13.2
Producing Thru: Casing - Tubing x Type Well G.G.
Date of Completion: 10-19-58 Packer 6040 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 116°F

OBSERVED DATA

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

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						1790		1790		
1.	4.026	2.000	7.2	4.2	74	692				SI 40 ¹ / ₂ hours 17 ¹ / ₂
2.										
3.										
4.										
5.										

L-10 Chart

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	Differential Pressure x static x dynamic 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	7.2 x 4.2 x 3.162 = 95.62	.9868	.9393	1.057	2396
2.						
3.						
4.						
5.						

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
P_c 9.936 (1-e^{-s}) 0.235

Specific Gravity Separator Gas .682
Specific Gravity Flowing Fluid
P_c 1803.2 P_c² 3251.53

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.	705.2	497.3	23.81	566.91	133.22	620.52	2621.01	794.1	.44
2.									
3.									
4.									
5.									

Absolute Potential: 2908 MCFPD; n .90
COMPANY MAGNOLIA PETROLEUM COMPANY
ADDRESS P. O. BOX 2406, HOBB, SN NW MEXICO
AGENT and TITLE George J. Fadden Gas Engineer
WITNESSED J. D. Horton
COMPANY Permian Basin Pipeline 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 .