

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial X Annual _____ Special _____ Date of Test 9-8/19-58
Company Pan American Petroleum Corp. Lease C. Myers "B" Well No. 4
Unit B Sec. 21 Twp. 24 Rge. 37 Purchaser Permian Basin Pipeline Co.
Casing 5-1/2" Wt. 17.0# I.D. 4.892" Set at 3295 Perf. 2950 To 3090
Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set at 2772 Perf. _____ To _____
Gas Pay: From 2950 To 3090 L 2772 xG 0.655 -GL 1816' Bar. Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-27-58 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Pipe

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						725.2		725.1		72 hr. SIP
1.	4	2.25	110.9	3.3	92	657.3		689.6		24
2.	4	2.25	187.5	12.0	67	588.0		639.6		24
3.	4	2.25	157.5	31.9	53	440.0		579.8		24
4.	4	2.25	178.2	38.7	60	272.3		534.7		24
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.	40.53	20.25	124.1	0.9706	0.9571	1.0078	769
2.	40.53	49.07	200.7	0.9933	0.9571	1.0178	1923
3.	40.53	73.79	170.7	1.0068	0.9571	1.0156	2925
4.	40.53	86.06	191.4	1.0000	0.9571	1.0167	3392
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
C. 9.936 (1-e^{-s}) 0.117
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 738.4 P_c² 545.2

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.	702.8	493.9				493.9	51.3		.95
2.	652.8	423.2				426.1	119.1		.88
3.	573.0	328.4				351.6	193.6		.80
4.	547.9	299.5				300.2	245.0		.74
5.									

Absolute Potential: 6380 MCFPD; n 0.79 1.88
COMPANY Pan American Petroleum Corporation
ADDRESS Box 68 - Hobbs, New Mexico
AGENT and TITLE J. C. Mack Field Engineer
WITNESSED R. L. West & J. D. Horton
COMPANY Permian Basin Pipeline Company

REMARKS

Poor point alignment, but due to this being a retest an average slope was drawn through the 2nd and 4th data point.

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} = Supercompressibility 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 .