

MULTI-POINT FLOW PRESSURE TEST OF GAS WELLS

Pool Eumont Formation Yates & Seven Rivers County LeaInitial _____ Annual _____ Special X Date of Test 5-18/19-59Company Pan American Petroleum Corporation Lease State "C" Tr. 11 Well No. 1Unit 2 P Sec. 2 Twp. 21-S Rge. 36-E Purchaser Permian Basin Pipeline CompanyCasing 7" Wt. 23.0 I.D. 6.366 Set at 3667 Perf. 2650 To 3598Tubing 2-7/8" Wt. 6.54 I.D. 2.441 Set at 3532 Perf. Open end To _____Gas Pay: From 2650 To 3598 L 2650 xG 0.670 -BL 1775 Bar.Press. 13.2Producing Thru: Casing _____ Tubing X Type Well SingleDate of Completion: 2-7-54 Packer _____ Reservoir Temp. 88.4°F (Calculated)

OBSERVED DATA

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

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						643.2		643.8		70.75
1.	4.000	1.250	338.6	3.8	75	632.1		632.7		3.00
2.	4.000	1.250	344.5	10.9	73	620.1		621.5		3.00
3.	4.000	1.250	343.8	25.7	68	601.1		603.8		3.00
4.	4.000	1.250	346.4	45.6	66	577.0		581.6		3.00
5.	4.000	1.250	345.4	41.1	69	552.9		557.2		24.00

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wDf}}$	Pressure psia	Flow Temp. Factor F _t	Gas Visc. Factor F _v	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	10.24	36.57	351.8	0.9859	0.9463	1.033	360.3
2.	10.24	62.44	357.7	0.9877	0.9463	1.035	618.5
3.	10.24	95.79	357.0	0.9924	0.9463	1.037	955.2
4.	10.24	128.1	359.6	0.9943	0.9463	1.037	1280
5.	10.24	121.4	358.6	0.9915	0.9463	1.037	1209

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ scf/bbl. Specific Gravity Separator Gas 0.670
Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid None
P_c _____ (1-e^{-S}) 657.0 P_c 431.6

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	645.9				417.2	14.4		0.9831
2.	634.7				402.8	28.8		0.9660
3.	617.0				380.7	50.9		0.9391
4.	594.8				353.8	77.8		0.9053
5.	570.4				325.3	106.3		0.8682

Absolute Potential: _____ MCFPD; _____

COMPANY Pan American Petroleum CorporationADDRESS P. O. Box 68 - Hobbs, New MexicoAGENT and TITLE _____ Original Signed by Area SuperintendentWITNESSED R. L. West J. W. BrownCOMPANY Permian Basin Pipeline Company

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those in 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 600 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 .