

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalnet Formation Yates & 7-B County Lea
Initial _____ Annual _____ Special X Date of Test 4-8/4-12-57
Company Pan American Petroleum Corp. Lease Mayer Well No. 1
Unit D Sec. 7 Twp. 24 Rge. 37 Purchaser KPMO
Casing 5 1/2 Wt. 17 I.D. _____ Set at 3150 Perf. _____ To _____
Tubing 2 1/2 Wt. 6.5 I.D. _____ Set at 3342 Perf. _____ To _____
Gas Pay: From 3150 To 3170 L 3342 xG .645 -GL 2156 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 8-31-57 Packer None Single-Bradenhead-G. G. or G.O. Dual
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						927				72
1.	4	1.500	835	18.5	90	841				24
2.	4	1.500	800	25.1	92	810				24
3.	4	1.500	788	38.4	87	795				24
4.	4	1.500	692	79.6	79	701				24
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (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.	13.99	125.22		.9743	.9643	1.071	1799
2.	13.99	151.11		.9706	.9643	1.087	2,112
3.	13.99	175.47		.9750	.9643	1.087	2453
4.	13.99	223.04		.9822	.9643	1.066	3,150
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-s}) 0.138

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 940.2 P_c² 884.0

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.	854.2	729.7	10.32	106.5	14.7	744.4	139.6		
2.	823.2	677.7	12.38	153.3	21.2	698.9	185.1		
3.	808.2	653.2	14.43	208.8	28.8	682.0	202.0		
4.	714.2	510.1	18.48	341.5	47.1	557.2	326.8		
5.									

Absolute Potential: 6,450 6100 MCFPD; n .722 66190
COMPANY Pan American Petroleum Corporation
ADDRESS P. O. Box 68 - Hobbs, New Mexico
AGENT and TITLE W. C. McPhail Field Engineer
WITNESSED _____
COMPANY _____

REMARKS

ENCLOSURE

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 .