

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 10-19-64
Company PAN AMERICAN PETROLEUM CORP. Lease J. C. Gordon "D" Well No. 3
Unit K Sec. 23 Twp. 27N Rge. 10W Purchaser _____
Casing 4-1/2 Wt. 10.5 I.D. 4.052 Set at 6722 Perf. 6614-30 To 6526-34
6640-48 6568-74
Tubing 2" Wt. 4.7 I.D. _____ Set at 6552 Perf. 6517 To 6523
Gas Pay: From 6574 To 6614 L. 6594 xG .700 -GL 4616 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10-12-64 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~(Rammer)~~ (Choke) ~~(Mabey)~~ Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Rammer) (Line) Size	(Choke) (Mabey) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	7 Days					1892		1892		
1.	2 Inch	.750	479			479	60° est.	1046	60° est.	3 Hr.
2.										
3.										
4.										
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.	12.3650		491	1.000	.9258	1.062	5970
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1904 P_c² 3,625,216

No.	$\frac{P_w}{P_t}$ (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	$\frac{P_w}{P_c}$
1.						1,119,364	2,505,825		
2.									
3.									
4.									
5.									

Absolute Potential: 7875 MCFPD; n .75

COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Box 480, Farmington, New Mexico
AGENT and TITLE F. L. Nabers, District Engineer
WITNESSED By: _____
COMPANY G. W. EATON, JR.

REMARKS

00126104
OIL CON. COM.
DIST. 3

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 .