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MAY 16 1966

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

O. C. C. Revised 12-1-55
ARTESIA, OFFICE

Pool Wildest Formation Siluro-Devonian County Eddy
Initial X Annual _____ Special _____ Date of Test 2-10-57
Company Pan American Petroleum Corporation Lease Greenwood Unit Well No. 1
Unit P Sec. 27 Twp. 18 Rge. 31 Purchaser Flare
Casing 5" Wt. 18# I.D. 4.276 Set at 13,007 Perf. 12,655 To 12,766
Tubing 2" Wt. 4.7# I.D. 1.995 Set at 12,767 Perf. 12,655 To 12,754
Gas Pay: From 12,655 To 12,700 L 12,655 xG 0.869 -GL 10,997 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single Completion
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 2-20-57 Packer 12.5% Reservoir Temp. 205°F

OBSERVED DATA

Tested Through (~~Block~~) (~~Orifice~~) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Block) (Line) Size	(Block) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig*	Temp. °F.	
SI						3585				SI
1.	4"	3"	120	2	105	3333		5100		73 Hrs.
2.	4"	3"	247	10	84	2735		4480		4 Hrs.
3.	4"	3"	392	19.5	85	1869		3710		4 Hrs.
4.	4"	3"	475	26	98	1343		3310		4 Hrs.
5.	4"	3"	520	32	101	1094		3260		24 Hrs.

*B.H.P. - measured with Amerada Bomb

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.	66.67	16.319		0.9592	0.9174	1.012	968.9	976
2.	66.67	51.003		0.9777	0.9174	1.027	3132.3	3193
3.	66.67	88.894		0.9768	0.9174	1.043	5544.6	5740
4.	66.67	112.688		0.9653	0.9174	1.050	6995.3	7199
5.	66.67	131.503		0.9627	0.9174	1.053	8153.5	8372

H.P. HP + LP

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 15610 cf/bbl.
Gravity of Liquid Hydrocarbons 58.1 deg.
F_c 9.936 (1-e^{-s}) 0.528

Specific Gravity Separator Gas 0.713
Specific Gravity Flowing Fluid 0.7463
P_c 3585 P_c² 12852

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.	3346.2	11,197	9.69	93.9	49.6	11247	1605		
2.	2748.2	7,552	31.73	1006.8	531.6	8084	4768		
3.	1882.2	3,543	57.03	3252.4	1717.3	5260	7592		
4.	1356.2	1,839	71.53	5116.5	2701.5	4541	8311		
5.	1107.2	1,226	83.18	6918.9	3653.2	4879	7973		

Absolute Potential: 13,600 MCFPD; n 1.0COMPANY Pan American Petroleum CorporationADDRESS Box 68 - Hobbs, New MexicoAGENT and TITLE Malcolm C. McPhail Field Engineer

WITNESSED _____

COMPANY _____

REMARKS _____

ELVIS A. UTZ
GAS ENGINEER

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 .