

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Cresby-Devonian Formation Devonian County Lea
Initial I Annual _____ Special _____ Date of Test 4-6/4-10-59
Company Pan American Petroleum Corporation Lease Farnsworth "C" Well No. 6
Unit A Sec. 4 Twp. 26 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 5-1/2" Wt. 15.0 I.D. _____ Set at 8679 Perf. _____ To _____
Tubing 2" Wt. 4.7 I.D. _____ Set at 8548 Perf. _____ To _____
Gas Pay: From 8490 To 8550 L 8548 xG 0.687 -GL 5872 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing I Type Well Single
Date of Completion: 12-16-58 Packer None Reservoir Temp. _____
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

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

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						2780				72
1.	4.00	2.250	595	6.76	70	2732				24
2.	4.00	2.250	598	16.81	61	2657				24
3.	4.00	2.250	637	32.49	64	2520				24
4.	4.00	2.250	654	58.52	60	2276				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.	33.10	64.12	608.2	0.9905	0.9571	1.061	2135
2.	33.10	101.4	611.2	0.9990	0.9571	1.066	3421
3.	33.10	145.3	650.2	0.9962	0.9571	1.069	4901
4.	33.10	197.6	667.2	1.0000	0.9571	1.073	6717
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 81.4 cf/bbl.
Gravity of Liquid Hydrocarbons 59.6 @ 60°F deg.
F_c 9.936 (1-e^{-S}) 0.331

Specific Gravity Separator Gas 0.655
Specific Gravity Flowing Fluid 0.7428
P_c 2793.2 P_c 7802

No.	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 / F _c
1.	2745.2	7536.1	21.21	449.9	148.9	7685	117	2772	0.9924
2.	2670.2	7130.0	33.99	1155	382.3	7512	290	2741	0.9813
3.	2533.2	6417.1	48.70	2372	785.1	7202	600	2684	0.9609
4.	2289.2	5240.4	66.74	4454	1474	6714	1088	2591	0.9276
5.									

Absolute Potential: 18,500 MCFPD; n 0.512660COMPANY Pan American Petroleum CorporationADDRESS P. O. Box 68 - Hobbs, New MexicoAGENT and TITLE _____ Original Signed by Area SuperintendentWITNESSED Herbert H. Kerby J. W. BROWNCOMPANY El Paso Natural Gas Company

REMARKS

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 .

Company - Pan American Petroleum Corporation
 Well - Farnsworth "C" No. 1
 Location - Unit "A", Sec. 4, T-26-S, R-37-E
 County - Lea
 Date - 4-6/4-10-59

