

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 12/7/59
Company SOUTHWEST PRODUCTION COMPANY Lease Callow Federal Well No. 1
Unit I Sec. 33 Twp. 29N Rge. 13W Purchaser -
Casing 7" Wt. 26# I.D. _____ Set at 6069' Perf. 5810 To 5943
Tubing 2-3/8" Wt. 4.7# I.D. 1995 Set at 6022-5768 Perf. 5768 To _____
Gas Pay: From 5810 To 5943 L 5768 xG .67 -GL 3864.5 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Gas Oil Dual Oil over Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 11/13/59 Packer 5754 Reservoir Temp. _____
Model D
OBSERVED DATA

Tested Through 11/13/59 (Choke) 11/13/59

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.	
1.		3/4	388		82°	2082	388			7 days
2.										3 hrs
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.	12.850		400	.9795	.9463	1.040	4.760
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 9.402 (1-e^{-s}) 0.245

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 2094 P_c 4384.8P_w 792P_w 627.2

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.	400	160	44.75	1902	467	627	3757.6	792	.378
2.									
3.									
4.									
5.									

Absolute Potential: 5.331 MCFPD; n 0.75COMPANY SOUTHWEST PRODUCTION COMPANYADDRESS 3106 Southland Center Dallas, 1, Texas

AGENT and TITLE _____

WITNESSED Test taken by Geo. Hoffman

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 .

G. C. 1511		
4		
2		
1		
State Land Office		
U. S. G. S.		
Transporter		
File	1	✓