

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Desert Formation Permian County Lea
Initial _____ Annual _____ Special X Date of Test May 24, 1956
Company Antec Oil & Gas Company Lease 111-1000 Well No. 41
Unit 1 Sec. 33 Twp. 19 Rge. 37 Purchaser Southern Union Gas Co.
Casing 3 1/2 Wt. _____ I.D. _____ Set at 3498 Perf. Open Hole To _____
Tubing 3 1/2 Wt. _____ I.D. _____ Set at 3531 Perf. 3624 To 3631
Gas Pay: From 3498 To 3647 L _____ xG 0.667 -GL _____ Bar. Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 3-17-52 Packer 3520 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

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

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.										
2.	4"	.750"	515	4"	68	777		778		24
3.	4"	.750"	510	8"	68	751		753		24
4.	4"	.750"	513	22"	70	670		702		24
5.	4"	.750"	510	39"	71	613		655		24

FLOW CALCULATIONS

No.	Coefficient (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.	3.435	45.96	522.2	.9924	.9184	1.051	156
2.	3.435	65.71	511.2	.9924	.9184	1.055	224
3.	3.435	110.59	556.1	.9905	.9184	1.054	376
4.	3.435	142.81	523.2	.9827	.9184	1.050	483

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas .667
Specific Gravity Flowing Fluid _____
P_c 851.2 P_c 724.5

No.	P _w P _{st} (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.	791.2					626.0	99.5	791.2	.930
2.	766.2					587.1	137.4	766.2	.930
3.	714.2					510.1	214.4	714.2	.839
4.	668.2					446.5	277.0	668.2	.785

Absolute Potential: 1.280 MCFPD; n 1.000COMPANY Antec Oil & Gas CompanyADDRESS Box 847, Hobbs, N.M. HeddenAGENT and TITLE Charles M. Hall Petroleum EngineerWITNESSED Tested by: Mr. Joe HardyCOMPANY Southern Union Gas Co.

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} = 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 .