NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan

Initial XX Annual Special Date of Test 1-8-63

Company Southern Union Production Lease City of Farmington Well No. 2-35

Unit L Sec. 35 Twp. 30-N Rge. 13-W Purchaser Southern Union Gas Co.

Casing 4½" Wt. 10.50 I.D. 4.052 Set at 6369 Perf. 6149 To 6345

Tubing 1½" Wt. 2.90 I.D. 1.610 Set at 6240 Perf. 6225 To 6240

Gas Pay: From 6149 To 6345 L 6225 xG .700 -GL 4358 Bar.Press. 12.0

Producing Thru: Casing Tubing Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1-1-63 Packer Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						2016		2013		7 day
1.	2"	3/4"	341		75	341	75	1198		3 hr.
2.										
3.										
4.										
5.										

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.	12.3650		353	.9859	.9258	1.038	4135
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas
Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid
F_c $(1-e^{-s})$ P_c 2028 P_c^2 4112.8

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.						1464.1	2648.7		.597
2.									
3.									
4.									
5.									

Absolute Potential: 5752 MCFPD; n .75

COMPANY Southern Union Production Company
ADDRESS Box 808, Farmington, New Mexico
AGENT and TITLE Verna Reckhold, Junior Engineer
WITNESSED Val Ripper
COMPANY Southern Union Production Company

REMARKS

RECEIVED
JAN 16 1963
OIL CON. COM.

cc: 3 N.M.O.C.C.
1 Mr. Paul Clote
1 Mr. L. S. Muennink
1 Mr. V. A. Ripper
Mr. Bob Corliss
Mr. Rudy Motto
File

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.