NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesa Verde Formation Mesaverde County San Juan

Initial XX Annual _____ Special _____ Date of Test 7-13-64

Company Southern Union Production Lease Navajo Well No. 5-B

Unit L Sec. 30 Twp. 27-N Rge. 8-W Purchaser El Paso Natural Gas Co.

Casing 5-1/2 Wt. 17# I.D. 4.892 Set at 6650 Perf. 4289 To 4426

Tubing 1-1/4 Wt. 2.30 I.D. 1.380 Set at 4411 Perf. 4401 To 4411

Gas Pay: From 4289 To 4426 L 4289 xG .730 -GL 3131 Bar.Press. 12.0

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

Date of Completion: 6-24-64 Packer 6350 Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1070		1064		19 days
1.	2"	3/4	439		83	536		439	83°	3 hrs.
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		451	.9786	.9066	1.055	5220
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1082 P_c^2 1170724

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.						300304	870420		.506
2.									
3.									
4.									
5.									

Absolute Potential: 6519 MCFPD; n .75

COMPANY Southern Union Production Company
ADDRESS P. O. Box 808 - Farmington, New Mexico
AGENT and TITLE Verne Rockhold - Jr. Engr.
WITNESSED Tom Grant
COMPANY El Paso Natural Gas Company

REMARKS

(3) New Mexico Oil Conservation Commission
(1) Mr. Paul J. Clote - Dallas
(1) El Paso Natural Gas Company - Prorations Dept., Box 1492, El Paso, Texas
(1) Mr. H. L. Kindricks, Box 990 - Farmington, New Mexico
(1) File

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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.