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 __10-23-63__

Company __Southern Union Production Co.__ Lease __McCord__ Well No. __6__

Unit __G__ Sec. __9__ Twp. __30-N__ Rge. __13-W__ Purchaser __El Paso Natural Gas Co.__

Casing __4-1/2__ Wt. __10.50__ I.D. __4.052__ Set at __6360__ Perf. __6105__ To __6288__

Tubing __1-1/2__ Wt. __2.90__ I.D. __1.610__ Set at __6107__ Perf. __6099__ To __6107__

Gas Pay: From __6105__ To __6288__ L __6099__ xG __.710__ -GL_____ Bar.Press. __12.0__

Producing Thru: Casing_____ Tubing __XX__ Type Well __Single Gas__
                                           Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: __10-16-63__ Packer_____ Reservoir Temp._____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)   Type Taps_____

No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI						1604		1603		7 days
1.	2"	3/4	204		75°	204	75°	806		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		216	.9859	.9193	1.023	2476
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 __1616__ P_c^2 __2611.4__

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	$\frac{P_w}{P_c}$
1.						667.1	1942.3		.506
2.									
3.									
4.									
5.									

Absolute Potential: __3091__ MCFPD; n __.75__

COMPANY __Southern Union Production Company__
ADDRESS __P. O. Box 808 - Farmington, New Mexico__   Original Signed By
AGENT and TITLE __Verne Rockhold, Jr. Engineer__   VERNE ROCKHOLD
WITNESSED __Herman McAnally__
COMPANY __El Paso Natural Gas Company__

REMARKS

(3) New Mexico Oil Conservation Commission
(1) Mr. Paul J. Clote
(2) El Paso Natural Gas Co. Proration Dept. Box 1492, El Paso, Texas
(2) Mr. H. L. Kindricks, P. O. Box 990 - Farmington, New Mexico
(1) File
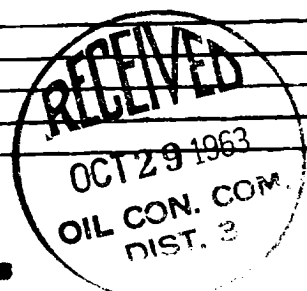
INSTRUCTIONS

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.