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 Mesa Verde County San Juan

Initial XX Annual Special Date of Test 6-10-65

Company Southern Union Production Lease Federal Large Well No. 1

Unit E Sec. 36 Twp. 29-N Rge. 9-W Purchaser El Paso Natural Gas Company

Casing 5½ Wt. 15.0 I.D. 4.950 Set at 6710 Perf. 5809 To 6442

Tubing 1-1/4 Wt. 2.33 I.D. Set at 6453 Perf. 6446 To 6453

Gas Pay: From 5809 To 6442 L 6446 xG .690 -GL 5797 Bar.Press. 12.0

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

Date of Completion: 6/2/65 Packer 6330 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						945		951		15 days
1.	2"	3/4	117		55°	117	55°	788		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		129	1.0000	.9395	1.013	1516
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 957 P_c^2 916249

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal.	P_w / P_c
1.						460000	456249		
2.									
3.									
4.									
5.									

RECEIVED
JUN 23 1965
OIL CON. COM.
DIST. 3

Absolute Potential: 3726 MCFPD; n .75
COMPANY Southern Union Production Company
ADDRESS P. O. Box 990 - Farmington, New Mexico
AGENT and TITLE Verne R. Rockhold - Engineer
WITNESSED Herman Kennedy
COMPANY El Paso Natural Gas Company

Original Signed By
VERNE ROCKHOLD

REMARKS

(3) cc: New Mexico O.C.C.
(1) cc: Mr. Paul Cloto
(1) cc: El Paso Natural Gas Co., Production Dept., P.O. Box 1492, El Paso, Texas
(1) cc: Mr. H. L. Kendrick, Box 990, Farmington, New Mexico
(1) cc: 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.