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 ~~XXX~~ SAN JUAN

Initial XX Annual _____ Special _____ Date of Test 7/20/64

Company SOUTHERN UNION PRODUCTION CO Lease NAVAJO INDIAN Well No. 5-B

Unit L Sec. 30 Twp. 27-N Rge. 8-W Purchaser EL PASO NATURAL GAS COMPANY

Casing 5-1/2 Wt. 17# I.D. 4.892 Set at 6650 Perf. 6378 To 6640

Tubing 1-1/2 Wt. 2.90 I.D. 1.610 Set at 6393 Perf. 6383 To 6393

Gas Pay: From 6378 To 6640 L 6383 xG .735 -GL 4692 Bar.Press. 12.0

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

Date of Completion: 7-1-64 Packer 6350 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (~~XXXXX~~) 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						1975		PACKER		19 DAYS
1.	2"	3/4	293		69°	293	69°			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		305	.9915	.9035	1.038	3507
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 16.46 $(1-e^{-s})$ .289

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1987 P_c^2 3948169

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.	305	93025	57.725	3332.176	962.999	1056024	2892145	1028	.516
2.									
3.									
4.									
5.									

Absolute Potential: 4429 MCFPD; n .75
COMPANY SOUTHERN UNION PRODUCTION COMPANY
ADDRESS P. O. BOX 808, FARMINGTON, NEW MEXICO
AGENT and TITLE VERNE S. ROCKHOLD - JR. ENGINEER
WITNESSED Ben Hendricks
COMPANY El Paso Natural Gas Co.

RECEIVED
JUL 22 1964
OIL CON. COM.
DIST. 3

REMARKS

(3) N.M.O.C.C.
(1) MR. PAUL CLOTE
(1) EL PASO NATURAL GAS CO., PRORATION DEPT.
(1) FILE
(2) MR. H. L. KINDRICKS; BOX 990; FARMINGTON, N.M.

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.