

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool BASIN DAKOTA Formation DAKOTA County SAN JUAN
Initial XX Annual _____ Special _____ Date of Test 2-20-64
Company SOUTHERN UNION PRODUCTION CO. Lease FEDERAL SENTER Well No. #1
Unit B Sec. 26 Twp. 31-N Rge. 13-W Purchaser EL PASO NATURAL GAS COMPANY
1020' FROM NORTH LINE 1810' FROM EAST LINE
Casing 4 1/2 Wt. 10.50 I.D. 4.052 Set at 6850 Perf. 6575 To 6653
Tubing 1 1/2 Wt. 2.90 I.D. 1.610 Set at 6600 Perf. 6590 To 6600
Gas Pay: From 6575 To 6653 L 6590 xG .700 -GL _____ Bar.Press. 12.00
Producing Thru: Casing _____ Tubing XX Type Well SINGLE GAS
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-25-64 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1773		1767		26 DAYS
1.	2"	3/4	58		77	58	77°	578		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		70	.9840	.9258	1.010	796
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 1785 P_c 3186.2

No.	$\frac{P_w}{P_t}$ (psia)	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-s})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.						348.1	2838.1		.331
2.									
3.									
4.									
5.									

Absolute Potential: 858 MCFPD; n .75COMPANY SOUTHERN UNION PRODUCTION COMPANYADDRESS P. O. Box 808, FARMINGTONAGENT and TITLE VERNE ROCKHOLD, JR. ENGINEERWITNESSED HERMAN MOANALLYCOMPANY EL PASO NATURAL GAS COMPANYOriginal Signed by
VERNE ROCKHOLD

RECEIVED

MAR 4 1964

OIL CON. COM.

DIST. 3

REMARKS

- (3) NEW MEXICO OIL CONSERVATION COMMISSION
(1) PAUL CLOTE
(1) EL PASO NATURAL GAS, PRORATION DEPT., P.O. Box 1492, EL PASO, TEXAS
(2) 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 .