

3-00C

## NEW MEXICO OIL CONSERVATION COMMISSION

1-EPNG Bill Parrish

1-D

1-Tidewater, 1NW, 1-Lion

1-Moncrief, 1 Tex

1-F

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Nat'l.

Form C-122

Revised 12-1-55

Pool Basin Dakota Formation Dakota County San JuanInitial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 6/30/61Company Southwest Production Co. Lease Charles Hutton Well No. 1Unit A Sec. 23 Twp. 30N Rge. 12W Purchaser El Paso Natural Gas CompanyCasing 4 1/2" Wt. 10.50# I.D. 4.040 Set at 6538 Perf. 6290 To 6454Tubing 1 1/2" Wt. 2.75# I.D. 1.610 Set at 6464 Perf. \_\_\_\_\_ To 6464Gas Pay: From 6290 To 6454 L 6464 xG .67 -GL \_\_\_\_\_ Bar.Press. 12.0Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single-Gas

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: \_\_\_\_\_ Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (X)(X)(X)(X)(X) (Choke) (X)(X)(X)(X) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2200		2200		7-Day
1.		3/4"	233			233	79	1050		3-Hr.
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650		245	.9822	.9463	1.023	2,880
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 2212 P<sub>c</sub><sup>2</sup> 4892.9P<sub>w</sub> 1062 P<sub>w</sub><sup>2</sup> 1127.8

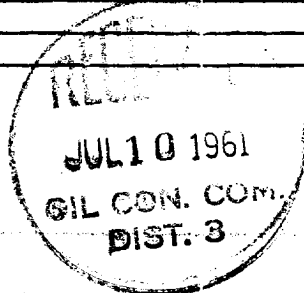
No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.						1127.8	3765.1		.480
2.									
3.									
4.									
5.									

Absolute Potential: 3.505 MCFPD; n .75COMPANY Southwest Production CompanyADDRESS 162 Petr. Center Bldg., Farmington, N. M.AGENT and TITLE George I. Hoffman, Jr. Production Foreman

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS \_\_\_\_\_



## 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  $P_t$ .