

3-MWCC  
1-McKay  
1-Empire States  
1-NWP  
1-Reese  
1-File

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122  
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Astos Est Formation Platoro G11Cn County San Juan  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 6-29-58  
Company McKay, Payne & Zachry Lease Maxwell Well No. #1  
Unit F Sec. 1 Twp. 30N Rge. 12W Purchaser \_\_\_\_\_  
Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 2393 Perf. 2208 To 2220  
Tubing 1" Wt. 1.70 I.D. 1.044 Set at 2220 Perf. 2220 To 2215  
Gas Pay: From 2208 To 2228 L \_\_\_\_\_ xG \_\_\_\_\_ -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_  
Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well Single  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: \_\_\_\_\_ Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Pressure) (Choke) (None) Type Taps \_\_\_\_\_

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.						665		665		
2.		3/4"	48		56	50				3 hrs
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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.							
2.	12.3650		60	1.0039	1.0171	1.00	756
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 477 P<sub>c</sub> 458

No.	$\frac{P_w}{P_t}$ (psia)	$P_t^2$	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	$\frac{(F_c Q)^2}{(1-e^{-s})}$	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>	$\frac{P_w}{P_c}$
1.									
2.	60					3.6	454.2		1.0083
3.									
4.									
5.									

Absolute Potential: 761 MCFPD; n .85 1.0071

COMPANY Val R. Reese & Assoc., Inc.

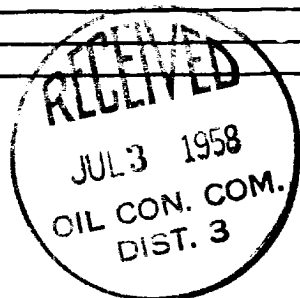
ADDRESS 120 S. Commercial

AGENT and TITLE T. A. Dugan, Engineer

WITNESSED Bob Jackson

COMPANY Empire States Drilg. Co.

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  $P_t$ .

OIL AND GAS COMMISSION		
WELL REPORT OFFICE		
Well Name	Well No.	
Location	County	
Flowing	Shut-in	
Pressure	Temperature	
Flowing	Shut-in	
Pressure	Temperature	
Flowing	Shut-in	
Pressure	Temperature	
Flowing	Shut-in	
Pressure	Temperature	
Flowing	Shut-in	
Pressure	Temperature	