

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Queen County Lea  
Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special X Date of Test 4-18-58  
Company SOUTHERN CALIFORNIA PETROLEUM CORPORATION Lease Alston Well No. 4  
Unit F Sec. 26 Twp. 25 Rge. 37 Purchaser El Paso Nat'l Gas Co.  
Casing 5-3/16 Wt. 17.0 I.D. 1.995 Set at 3190 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Tubing 2-3/8 Wt. 4.7 I.D. \_\_\_\_\_ Set at 3205 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 3190 To 3216 L 3205 xG .670 -GL 2147 Bar.Press. 13.2  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single  
Date of Completion: 6-11-38 Packer none Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) ✓Type Taps Flange

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										
1.	4	2.000	21	12.96	60	56		377		72
2.								95.0		24
3.										
4.	Unable to obtain any test data during multi-point testing schedule. Average									
5.	Jalmat slope of .771 drawn through one-point from test data obtained during deliverability test.									

## 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.	25.58	20.99		1.000	.9483		508
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry with tr. of water cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> Measured (1-e<sup>-s</sup>) \_\_\_\_\_

Specific Gravity Separator Gas .670  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 390.2 P<sub>c</sub> 152.3

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.	69.2	4.8				11.7	140.8		
2.									
3.									
4.									
5.									

Absolute Potential: 540MCFPD; n .771COMPANY SOUTHERN CALIFORNIA PETROLEUM CORPORATIONADDRESS Box 1071, Midland, Texas

AGENT and TITLE

WITNESSED

COMPANY

Tested by E. G. SmithEl Paso Natural Gas Co.Division Engineer5-2-58

## REMARKS

Exemption from deliverability tests granted this well by NMOC letter Aug. 23, 1954, due to loading up with water.

## 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  $P_t$ .