

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Dakota Formation Dakota County San Juan  
Initial 1 Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9-27-60  
Company Delhi-Taylor Oil Corp. Lease Delhi-Hudre Well No. 6  
Unit 11/4 Sec. 9 Twp. 31N Rge. 11-W Purchaser \_\_\_\_\_  
Casing 5-1/2 Wt. 17# I.D. 4.894 Set at 7375 Perf. 7270-90 To 7174-90  
Tubing 2-3/8 Wt. 4.7# I.D. 1.995 Set at 7238 Perf. 7232 To 7238  
Gas Pay: From 7150 To 7356 L \_\_\_\_\_ xG 0.650 -GL \_\_\_\_\_ Bar.Press. 12  
Producing Thru: Casing \_\_\_\_\_ Tubing 1 Type Well Single gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 9-17-60 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (None) (Choke) (None) 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.	
1.		<u>3/4"</u>	<u>231</u>		<u>86"</u>	<u>2042</u>	<u>87"</u>	<u>2075</u>	<u>880</u>	<u>7 Days</u>
2.										<u>3 Hours</u>
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wDf}}$	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.	<u>12.335</u>		<u>233</u>	<u>0.9741</u>	<u>0.9008</u>	<u>1.020</u>	<u>2788</u>
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> 2087 P<sub>c</sub> 435569

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.									
2.									
3.									
4.									
5.									

Absolute Potential: 3001 MCFPD; n 0.75

COMPANY Delhi-Taylor Oil Corporation  
ADDRESS P. O. Boxer 1188, Farmington, New Mexico  
AGENT and TITLE J. F. Barry - Dist. Engineer  
WITNESSED Bob Mitchell  
COMPANY El Paso Natural Gas 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  $P_t$ .