

## WELL POINT BACK PRESSURE TEST GAS METER

Pool Undesignated Location Dakota County San Juan  
Initial X Area          Special          Date of Test March 19, 1959  
Company Angel Peak Oil Co. Lease Angel Peak Well No. 20-B  
Unit A Sec. 24 Twp. 28N Rge. 11W Purchaser Southern Union Gas Co.  
Casing 5 1/2" Wt. 15.5 I.D. 4.950 Set at 6596 Perf. 6288 To 6340  
6350-6492  
Tubing 2" EUE Wt. 4.7 I.D. 1.995 Set at 6340 Perf. 6325 To 6340  
Gas flow From 6288 To 6507 L 6325 SG 0.68 GL 4301 Bar. Press. 12.0  
Producing Time          Casing          Tubing X Type Well Single Gas  
Single-Bradenhead-G. or G.O. Dual  
Date of Completion: Mar. 12, 1959 Packer 6102 Reservoir Temp.         

## OBSERVED DATA

Tested Through (~~Pressure~~) (~~Control~~) (Meter)Type Tape Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	( <del>XXXXXX</del> ) (Line) Size	( <del>XXXXXX</del> ) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4"	2.75"	500	32"	81	2077				7 days 24 hours
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp}}$	Pressure psia	Flow Temp. Factor $F_t$	Gravity Factor $F_g$	Compress. Factor $F_{pv}$	Rate of Flow Q-MCFPD @ 15.025 psia
1.	53.05	128		0.9804	0.9393	1.051	6,572
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 72,220 cf/bbl.  
Gravity of Liquid Hydrocarbons 61.4 deg.  
 $P_c$  9.402 ( $10^{-5}$ ) 0.269

Specific Gravity Separator Gas 0.68  
Specific Gravity Flowing Fluid           
 $P_c$  2089  $P_c^2$  4363.92

No.	$P_w$ $P_t$ (psia)	$P_c^2$	$F_{cQ}$	$(F_{cQ})^2$	$(P_cQ)^2$ ( $10^{-5}$ )	$P_{cQ}$	$F_{cQ}^2 - P_{cQ}^2$	Cal. $P_w$	$\frac{P_w}{P_c}$
1.	512	262.1	61.79	3818	1027	1288.22	3075.70	1135	0.544
2.									
3.									
4.									
5.									

Absolute Potential: 8,550MCFPD;  $n$  0.75COMPANY Angel Peak Oil Co.ADDRESS Box 815, Farmington, New MexicoAGENT and TITLE Tom FermoWITNESSED         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 ~~Commis~~ 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.

$F_{pv}$  - Supercompressibility 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  $P_t$ .

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