

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122  
Revised 12-1-55  
HOBBS OFFICE NOV. 20 AM 10:14

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yaten County Lee  
Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special XXX Date of Test 1-7/1-11-57  
Company Skelly Oil Company Lease State M Well No. 3  
Unit K Sec. 32 Twp. 24 S Rge. 37 E Purchaser El Paso Natural Gas Company  
Casing 7" Wt. 20# I.D. 6.456" Set at 3415' Perf. \_\_\_\_\_ To \_\_\_\_\_  
Tubing 2" Wt. 4.7# I.D. 1.995" Set at 3484' Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 2813' To 2842' L 2813 xG 0.650 -GL 1328 Bar.Press. 13.2  
Producing Thru: Casing XX Tubing \_\_\_\_\_ Type Well G. O. Dual  
Date of Completion: 12-39 Packer 3390 Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Packer)(Choke) (Meter)

Type Taps \_\_\_\_\_

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	
1.	4	1.250	191	14.44	49	734		72
2.	4	1.250	199	22.56	54	568		24
3.	4	1.250	191	33.64	54	502		24
4.	4	1.250	202	60.84	68	426		24
5.						210		24

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.	9.643	54.28		1.0107	0.9608	1.022	519
2.	9.643	69.16		1.0058	0.9608	1.021	659
3.	9.643	82.84		1.0058	0.9608	1.021	788
4.	9.643	114.37		0.9924	0.9608	1.020	1073
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> 0.707 (1-e<sup>-s</sup>) 0.118

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 747.2 P<sub>c</sub><sup>2</sup> 558.3

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.	581.2	337.8	0.37	0.14	0.02	337.8	220.5		
2.	515.2	265.4	0.47	0.22	0.03	265.4	292.9		
3.	439.2	192.9	0.56	0.31	0.04	192.9	365.4		
4.	223.2	49.8	0.76	0.57	0.06	49.8	508.5		
5.									

Absolute Potential: 1,160 MCFPD; n 0.875  
COMPANY Skelly Oil Company  
ADDRESS Box 38, Hobbs, New Mexico  
AGENT and TITLE \_\_\_\_\_  
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  $P_t$ .