

38-005 - '3271

C/SF

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator RELIANCE ENERGY				Lease or Unit Name WILLOW SPRING "20"			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date		Well No. 1	
Completion Date 12-24-00		Total Depth 4121		Plug Back TD 4063		Elevation	
Unit Ltr - Sec - TWP - Rge B 20 4S 25E							
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 4063	Perforations: From: 3700 To: 3930		County CHAVES	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 3681	Perforations: From: To:		Pool PECOS SLOPE ABO	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At NONE		Formation ABO SAND	
Producing Thru TUBING		Reservoir Temp. °F 60		Baro. Press. - P _a 13.2		Connection SALES	
L 3681	H 3681	Gg 0.865	%CO ₂ 0	%N ₂ 70.08	%H ₂ S N/A	Prover N/A	Meter Run 2.067
Taps FLG							
FLOW DATA				TUBING DATA		CASING DATA	
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp. °F	Press p.s.i.g.	Temp. °F
SI						940	N/A
1	2.067 X .500		85	10	60	95	
2							
3							
4							
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}
1	1.189		31.3	98.2	1	1.075	1.04
2							
3							
4							
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcf bbl.		
1	0.85	520	1.52	0.925	A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.		
2					Specific Gravity Separator Gas 0.865 XXXXXXXX		
3					Specific Gravity Flowing Fluid N/A XXXXXX N/A		
4					Critical Pressure 607 P.S.I.A. P.S.I.A.		
5					Critical Temperature 342 R R		
P _c 953.2		P ₂ 908.6					
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.013}{1.013}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.013}{1.013}$		
1	11.7	108.3	11.7	896.9			
2							
3							
4							
5							
Absolute Open Flow 42 Mcfd @ 15.025				Angle of Slope (°): 45		Slope n: 1	
Remarks: * NO LIQUID MADE DURING TEST.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: BM	