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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-122
Revised October, 1999

C15F

RECEIVED OCD ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: Reliance Energy, Inc.						Lease or Unit Name: Willow Spring "16" State			
Type Test: ☒ Initial ☐ Annual ☐ Special						Test Date: 7-31-01		Well No.: 1	
Completion Date: 3-29-01		Total Depth: 3960		Plug Back TD: 3938		Elevation: 3864' GR		Unit Ltr. - Sec. - TWP - Rge.: N 16 4S 25E	
Csg. Size: 5-1/2	Wt.: 15.5	d	Set At: 3959	Perforations: From: 3738	To: 3768			County: Chaves	
Thg. Size: 2-3/8	Wt.: 4.7	d	Set At: 3694	Perforations: From:	To:			Pool: Pecos Slope Abo	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At				Formation: Abo Sand	
Producing Thru: Thg	Reservoir Temp. °F: 100°		Mean Annual Temp. °F: 60°	Baro. Press - P_a				Connection: Sales	
L: 3748	H: 3748	Gg: .698	%CO_2: 0	%N_2: 17.23	%H_2S: -	Prover: -		Meter Run: 2.1	Taps: Pipe

	FLOW DATA				TUBING DATA		CASING DATA		
No.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration Of Flow
SI					740	89			72 hrs.
1.	2.07 x .500	92.	3.0	90.	100	89	-	-	72 hrs.
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 Fg.	Super Compress. Factor, F pv.	Rate of Flow Q, Mcfd
1.	1.23	17.77	105.2	.9723	1.1971	1.0067	26.
2.							
3.							
4.							
5.							

No.	P_r	Temp. °R	T_r	Z
1.	.16	550.	1.61	.987
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A. P. I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .698 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 638 P.S.I.A. .698 P.S.I.A.
Critical Temperature 342 R. _____ R

P_c 753.2 P_c^2 567

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		113.	13.	555
2.				
3.				
4.				
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.0230 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = _____

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.0195

Absolute Open Flow 26 Mcfd@ 15.025 Angle of Slope θ: 45 Slope, n: 1

Remarks: _____

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Delton Shirley	Red Dog Tstg	Gary Morgan