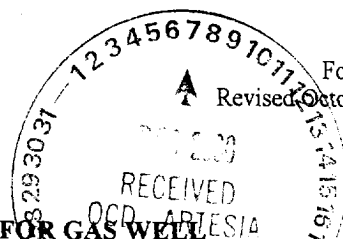


Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

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

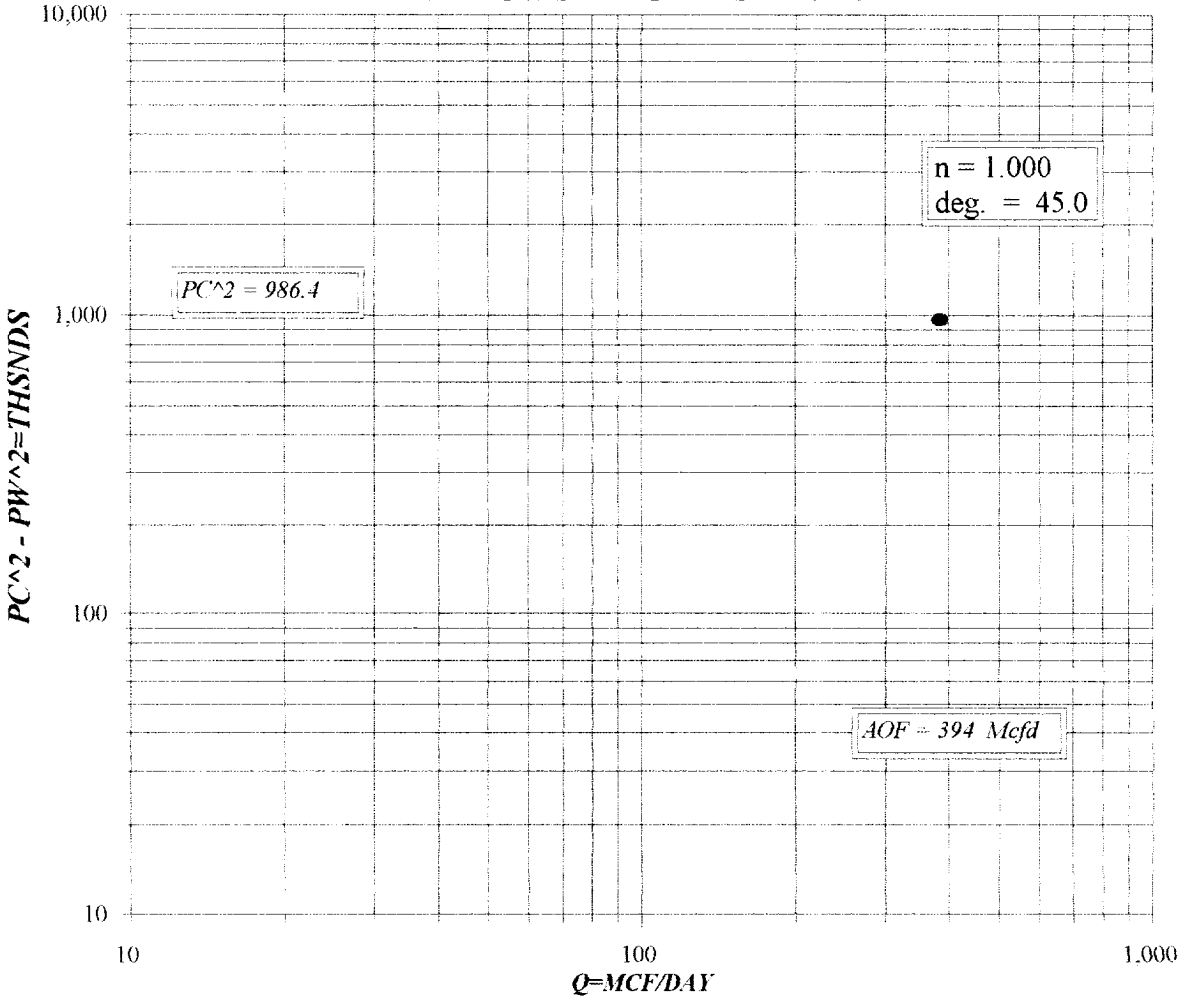


Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator RELANCE ENERGY INC.				Lease or Unit Name WILLOW SPRING 29" STATE			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11/8/00		Well No. 1	
Completion Date 11/5/00		Total Depth 4250		Plug Back TD 4050		Elevation	
Csg. Size 5 1/2		Wt. 15.5		d 4.892		Set At 4093	
Tbg. Size 2 3/8		Wt. 4.7		d 1.995		Set At 3909	
Perforations: From: 3674 To: 4010				County CHAVES			
Perforations: From: To:				Pool PECOS SLOPE ABO			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At NO PKR		Formation ABO SAND	
Producing Thru TUBING		Reservoir Temp. °F 113.1		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2	
Connection SALES							
L 3909	H 3909	Gg 0.654	%CO ₂ 0.06	%N ₂ 6.87	%H ₂ S N/A	Prover N/A	Meter Run 2.067
Taps FLG							
FLOW DATA				TUBING DATA			
CASING DATA				Duration of Flow			
No.	Prover Line Size	Orifice Size	Press p.s.i.g.	Diff. h _w	Temp. °F	Press p.s.i.g.	Temp. °F
SI							
1	2.067 X 1.000		125	28	60	125	310
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}	Rate of Flow Q, Mcfd
1	4.946	62.2	138.2	1	1.237	1.046	385
2							
3							
4							
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcf bbl.		
1	0.78	520	1.46	0.914	A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.		
2					Specific Gravity Separator Gas 0.654 XXXXXXXX		
3					Specific Gravity Flowing Fluid N/A XXXXXX		
4					Critical Pressure 662 P.S.I.A. P.S.I.A.		
5					Critical Temperature 354 R. R.		
P _c 993.2 P _{c2} 986.4							
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.022$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.022$		
1	19.1	146.2	21.4	965.1			
2							
3							
4							
5					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 0.394$		
Absolute Open Flow 394				Mcf/d @ 15.025		Angle of Slope (°) 45	
				Slope n:		1	
Remarks: * NO MEASUREABLE LIQUID MADE DURING TEST.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MB		Checked By: BM	

RELIANCE ENERGY INC.
WILLOW SPRING "29" STATE #1



UNIT :N

SECTION :29

TOWNSHIP :4S

L : 3909 H : 3909 L 1 G/GMIX : 0.654
 %CO2 : 0.06 %N2 : 6.87 H2S : DATE :11/8/00
 d : 1.995 Pr :0.018231 GH : 2556.5 RANGE :25E

VOL 1 : 385 PSIA 1 : 138.2 RESV.TEMP 113.1
 VOL 2 : PSIA 2 :
 VOL 3 : PSIA 3 : SHUT-IN PR= 993.2
 VOL 4 : PSIA 4 :

PCR : 662

TCR : 354

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1 QM	0.385	0.385	0.000	0.000	0.000	0.000	0.000	0.000
2 TW	534	534	534	534	534	534	534	534
3 Ts	573.1	573.1	573.1	573.1	573.1	573.1	573.1	573.1
4 T	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
PR (est)	0.21		0.00		0.00		0.00	
5 Z(est)	0.958	0.956	ERR	ERR	ERR	ERR	ERR	ERR
6 TZ	530.2	529.4	ERR	ERR	ERR	ERR	ERR	ERR
7 GH/TZ	4.822	4.829	ERR	ERR	ERR	ERR	ERR	ERR
8 eS	1.198	1.199	ERR	ERR	ERR	ERR	ERR	ERR
9 l-e-S	0.165	0.166	ERR	ERR	ERR	ERR	ERR	ERR
10 Pt	138.2	138.2	0.0	0.0	0.0	0.0	0.0	0.0
11 Pt2 /1000	19.1	19.1	0.0	0.0	0.0	0.0	0.0	0.0
12 Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
13 Fc=FrTZ	9.666	9.652	ERR	ERR	ERR	ERR	ERR	ERR
14 FcQm	3.72	3.72	ERR	ERR	ERR	ERR	ERR	ERR
15 L/H(FcQm)	13.8	13.8	ERR	ERR	ERR	ERR	ERR	ERR
16 Fw	2.290804	2.287185	ERR	ERR	ERR	ERR	ERR	ERR
17 Pw2	21.4	21.4	ERR	ERR	ERR	ERR	ERR	ERR
18 Ps2	25.6	25.6	ERR	ERR	ERR	ERR	ERR	ERR
19 Ps	160.1	160.1	ERR	ERR	ERR	ERR	ERR	ERR
20 P	149.1	149.1	ERR	ERR	ERR	ERR	ERR	ERR
21 Pr	0.23	0.23	ERR	ERR	ERR	ERR	ERR	ERR
22 Tr	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
23 z	0.956	0.956	ERR	ERR	ERR	ERR	ERR	ERR

Pt2 = 1 Pw = 146.2
 u.0 ERR
 0.0 ERR
 0.0 ERR

Pc2-Pw2= 965.1 Pw2 = 21.4
 ERR ERR
 ERR ERR
 ERR ERR

n = 1.000

Pc2/(Pc2-Pw2) = 1.022
 ERR
 ERR
 ERR

[Pc2/Pc2-Pw2]n = 1.022
 ERR
 ERR
 ERR

AOF= Q 0.394
 ERR
 ERR
 ERR

FORM C122-D