

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

State of New Mexico
Energy Minerals and Natural Resources

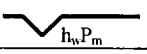
Form C-122
Revised October, 1999

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Reliance Energy, Inc.					Lease or Unit Name Willow Spring "29" State				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-31-01		Well No. 2		
Completion Date 11-01-00		Total Depth 4250		Plug Back TD 3969		Elevation 3858 GR		Unit Ltr. - Sec. - TWP - Rge. H 29 4S 25E	
Csg. Size 5-1/2	Wt. 15.5	d 	Set At 4250	Perforations: From: 3664 To: 4070				County Chaves	
Thg. Size 2-3/8	Wt. 4.7	d 	Set At 3980	Perforations: From: To: 				Pool Pecos Slope ABo	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 3918		Formation Abo Sd		
Producing Thru Tbg		Reservoir Temp. °F 100°		Mean Annual Temp. °F 60°		Baro. Press - P _a 		Connection Sales	
L 3727	H 3727	G _g .659	%CO ₂ 0	%N ₂ 7.31	%H ₂ S -	Prover -	Meter Run 2.1	Taps Pipe	

FLOW DATA					TUBING DATA		CASING DATA		Duration Of Flow	
No.	Prover Line Size	Orifice X 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
SI						400.	89			72 hrs
1.	2.07 x	.375	90.	2.0	90.	90.	89			72 hrs
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	.68	14.37	103.2	.9723	1.2317	1.0074	12.
2.							
3.							
4.							
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.16	550.	1.54	.985	A. P. I. Gravity of Liquid Hydrocarbons	Deg.
2.					Specific Gravity Separator Gas	.659
3.					Specific Gravity Flowing Fluid	XXXXXX
4.					Critical Pressure	657. P.S.I.A.
5.					Critical Temperature	357. R

P _c	413.2	P _c ²	171
No.	P _i ²	P _w	P _w ²
1.		103	11
2.			
3.			
4.			
5.			

(1) $P_{c2} = \frac{1.0662}{P_{c2}^2 - P_w^2}$

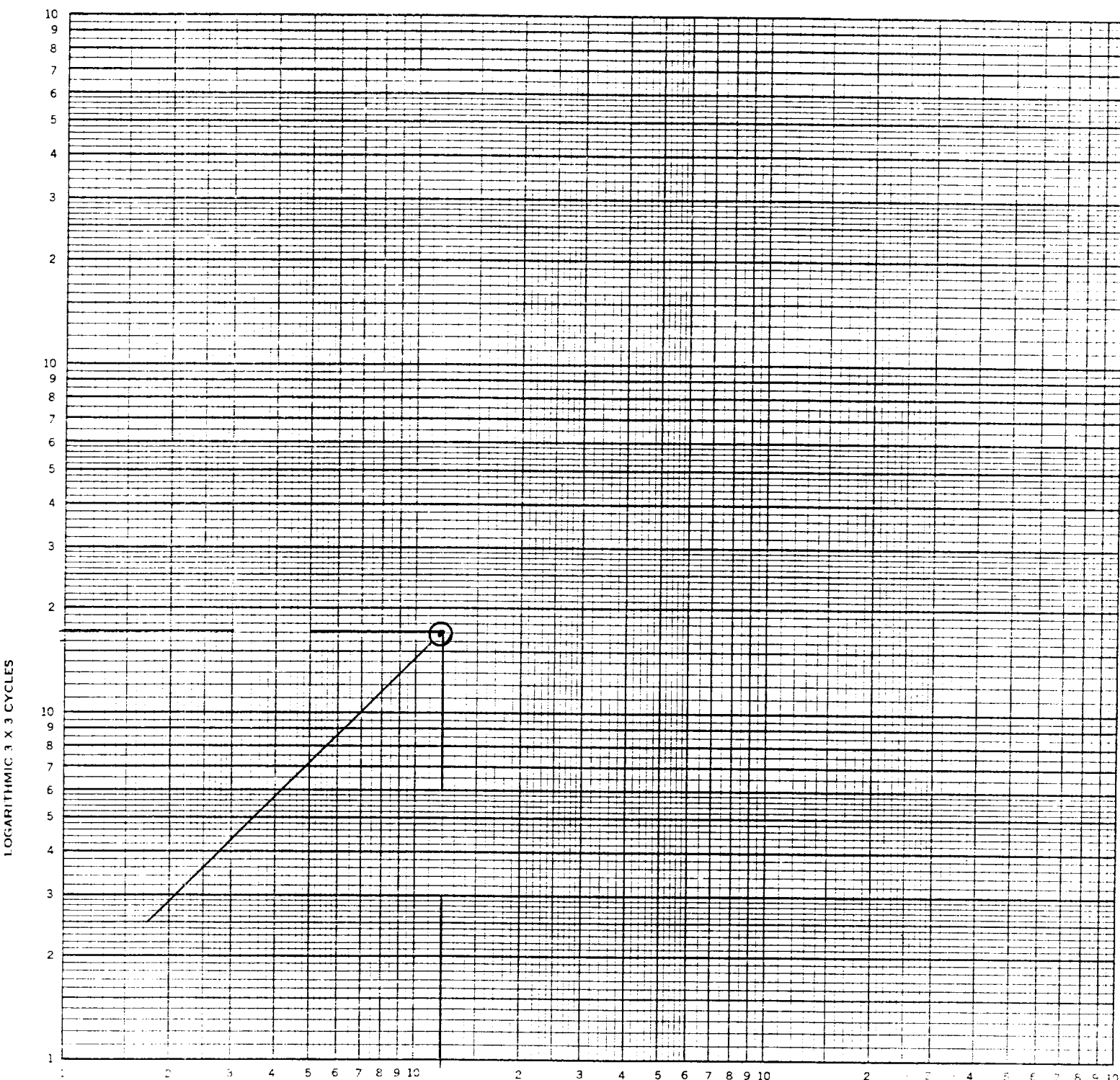
AOF = Q $\left[\frac{P_{c2}^2}{P_{c2}^2 - P_w^2} \right]^n = 1.0560$

(2) $\left[\frac{P_{c2}^2}{P_{c2}^2 - P_w^2} \right]^n =$

Absolute Open Flow 12	Mcf/d @ 15.025	Angle of Slope θ: 45	Slope, n: 1
Remarks:			
Approved By Division			
Conducted By: D. Shirley		Calculated By: Red Dog Testing	
		Checked By: G. Morgan	

**GAS WELL
BACK PRESSURE CURVE**

COUNTY: Chave FIELD: Pecos Slope Abo
OPERATOR: Reliance Energy, Inc
LEASE: Willow Spring "29" WELL NO. 2
VOLUME: 12 MCF/24 HR
DATE: 7-31-01



Q in MCF per DAY

$\alpha = 45^\circ$

$n = 1$

Q = 12 MCF/D AOF

RECEIVED
OCD ARTESIA