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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources

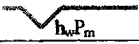
Form C-122
Revised October, 1999

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Gruy Petroleum Mgt.						Lease or Unit Name Rhodes Federal Unit					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7/16/01			Well No. 171		
Completion Date 7/16/01		Total Depth 3296'		Plug Back TD 3076		Elevation 2977 GL			Unit Ltr. - Sec. - TWP - Rge. B-17-26 S- 37 E		
Csg. Size 5 1/2	Wt. 15.5	d 	Set At 3296'	Perforations: From: 2936 To: 2966			County Lea				
Thg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 2981'	Perforations: From: Rod Pump To: 			Pool Rhodes Yates- 7 RV				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At NONE			Formation: Rhodes Yates-7RV		
Producing Thru CASING		Reservoir Temp. °F 103 @ 2936'		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2			Connection Sid Richardson		
L 2936	H 2936	Gg .775	%CO ₂ .6	%N ₂ 14.0	%H ₂ S 	Prover 		Meter Run 4"	Taps FLANGE		

FLOW DATA					TUBING DATA		CASING DATA		Duration	
No.	Prover Line Size	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	Of Flow
SI								264	90	
1.	4.026 X	.625	6	16	93			8		24
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.	1.845	17.53	19.2	.9697	1.136	NIL	36
2.							
3.							
4.							
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mc/bbl.
1.	.03	553	1.47	NIL	A. P. I. Gravity of Liquid Hydrocarbons _____ Deg.		
2.					Specific Gravity Separator Gas .775 XXXXXXXXXX		
3.					Specific Gravity Flowing Fluid XXXXXX		
4.					Critical Pressure 646 P.S.I.A. P.S.I.A.		
5.					Critical Temperature 375 R. R		

P _c 264	P _c ² 69.7				
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	
1.		21.2	4.5	65.2	(1) P _c ² = 1.069
2.					(2) P _c ² n = 1.069
3.					$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$
4.					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right] = 38$
5.					

Absolute Open Flow	38	Mcfd @ 15.025	Slope θ: 45	Slope, n: 1.00
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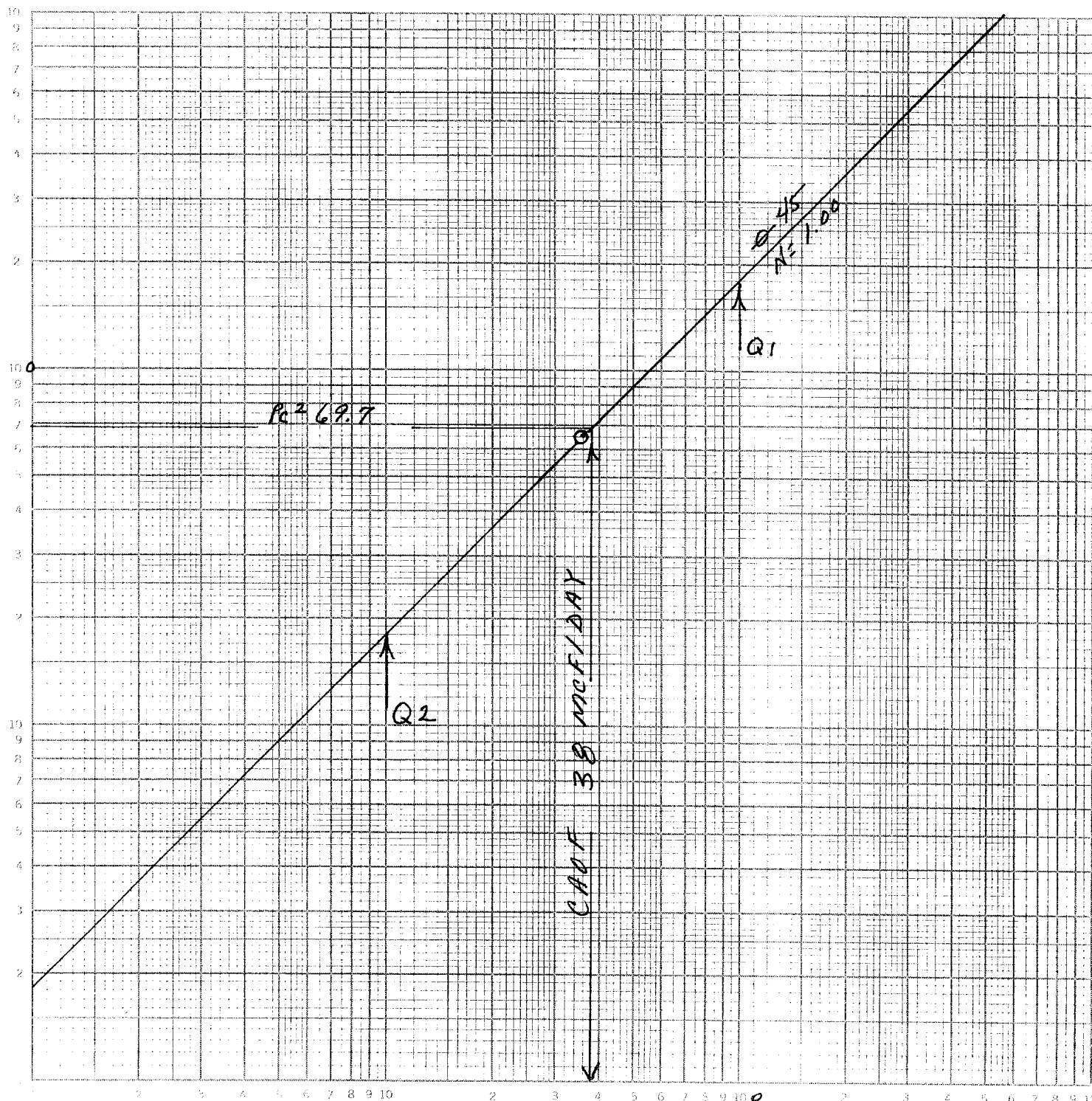
Remarks: **3 BBLs of water make during test Oil TSTM, 24 hour flow rate**

Approved By Division	Conducted By: Ron Woodard	Calculated By: Reggie Reston	Checked By:
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Gruy Petroleum Mgt.
Rhodes Federal Unit # 171
Unit B-Sec. 17 -Twp 26S-Rge. 37E
Lea, Co. N.M.

$P_c^2 - P_w^2$ in (Thousands)
457400

LOGARITHMIC 3 X 3 CYCLES
KEUFEL & ESSER CO. MADE IN U.S.A.



$$Q = \text{Mcf/day}$$

$$Q_1 = 100, \text{ Log } 2.000000$$

$$- Q_2 = 10, \text{ Log } 1.000000$$

$$N = 1.000000$$