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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 H. L. BROWN, Jr.				Lease or Unit Name FEDERAL "27" COM			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11/13/01	Well No. 3
Completion Date 10/14/01		Total Depth MD: 9419; TVD: 7995		Plug Back TD 9419		Elevation 4057 GL	Unit Ltr - Sec - TWP - Rge D 27 7S 37E
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 8150	Perforations: Open Hole From: 8150 To: 9419		County ROOSEVELT	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 7698	Perforations: From: To:		Pool Bluitt Wolfcamp (Gas)	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 7691		Formation WOLFCAMP	
Producing Thru Tubing		Reservoir Temp. °F 151		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 7698		H 7698		Gg 0.741	%CO ₂ 0.059	%N ₂ 8.421	%H ₂ S N/A
				Prover N/A	Meter Run 3.068		Taps FLG
FLOW DATA				TUBING DATA			
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	3.068 X 1.500		56	29	60	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	11.13	44.8	69.2	1	1.162	1.062	615
2							
3							
4							
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 153.75 Mcf bbl.		
1	0.79	520	1.36	0.887	A.P. I. Gravity of Liquid Hydrocarbons 68.5 Deg.		
2					Specific Gravity Separator Gas 0.741 XXXXXXXX		
3					Specific Gravity Flowing Fluid XXXXXX GMLX=.758		
4					Critical Pressure 657 P.S.I.A. 657 P.S.I.A.		
5					Critical Temperature 382 R. 358.29 30.37 R.		
P _c 1813.2 P _{c2} 3287.7							
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.037$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.037$		
1	104.2	340.7	116.1	3171.6			
2							
3							
4							
5							
Absolute Open Flow 638				Mcf @ 15.025	Angle of Slope (°): 45	Slope n: 1	

Remarks: * WELL MADE 4 BBLS OF 68.5 API GRAVITY CONDENSATE DURING TEST.

Approved By Division: PAUL T. KAUFZ	Conducted By: PRO WELL TESTING	Calculated By: MERV BUECKER	Checked By: BM
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PAUL T. KAUFZ
PETROLEUM ENGINEER

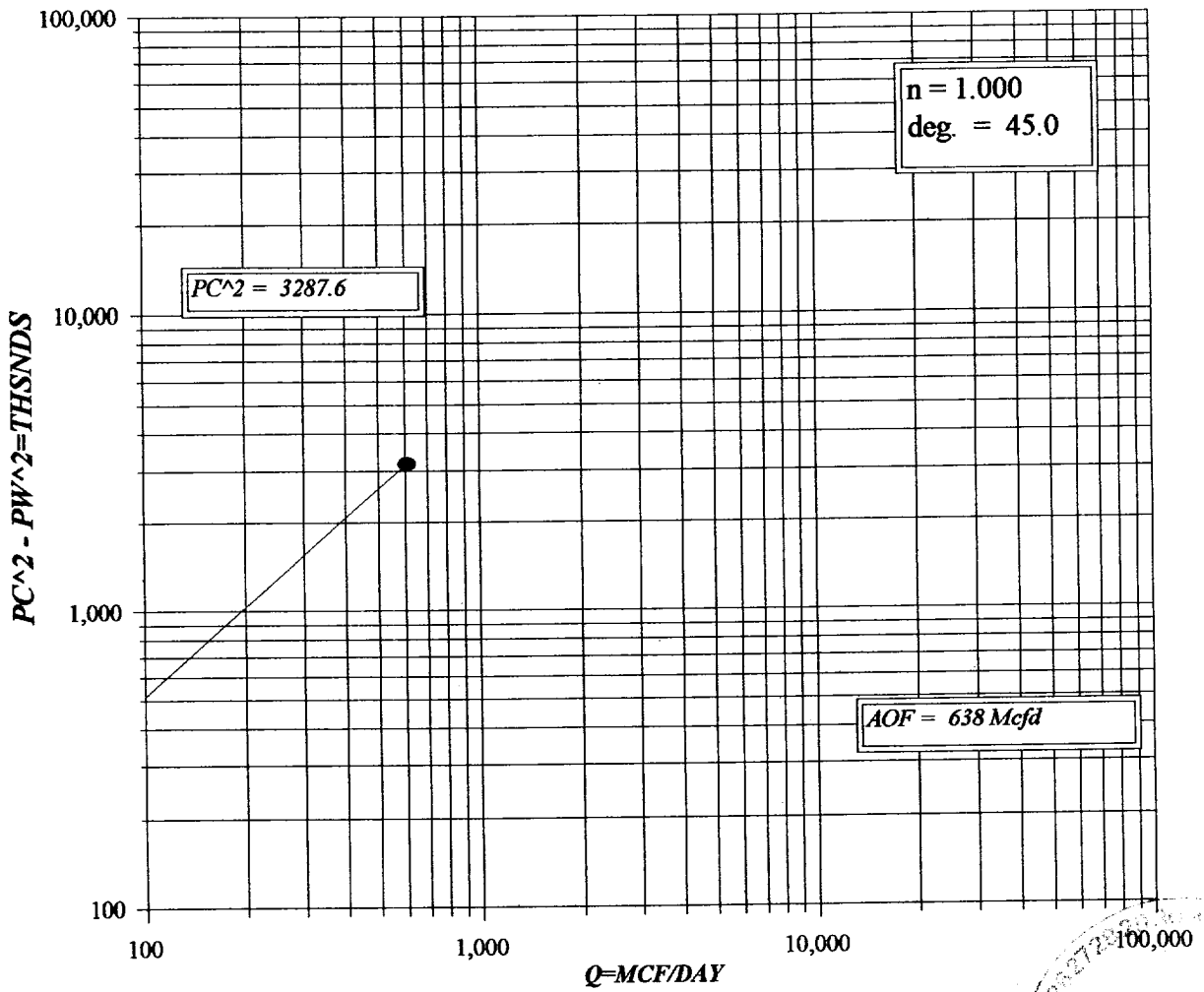
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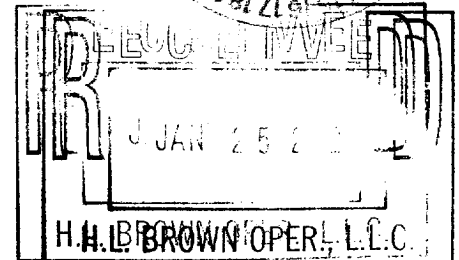
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BUREAU OF LAND MGMT
ROSWELL OFFICE

H.L. BROWN
FEDERAL "27" COM #3



1972 JAN 25 10 18 AM



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ROSWELL OFFICE

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NEW MEXICO G.O.R./G. MIX

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NO. OF BBLs PRODUCED = 4.0
API GRAVITY @ 60 DEG. = 68.5

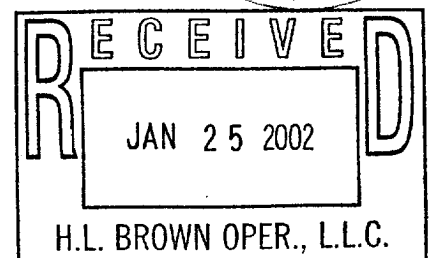
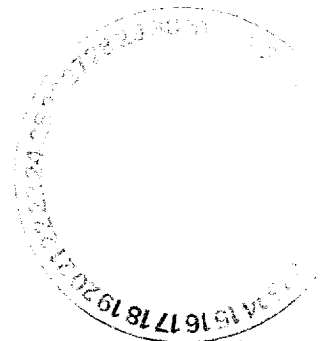
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SPECIFIC GRAVITY OF GAS = 0.7410

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TOTAL GAS PRODUCED = 615

G.O.R. = 153.750

G.MIX = 0.758



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