

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9-29-75			
Company Amoco Production Company				Connection None					
Pool Antelope Ridge				Formation Morrow				Unit	
Completion Date 9-23-75		Total Depth 13,910'		Plug Back TD 13,681'		Elevation 3441' GL		Farm or Lease Name State "FQ" Gas Com	
Csg. Size 5"	Wt. 17.93	d 4.89	Set At 13,890'	Perforations: From 13,380 To 13,391'		Well No. 1			
Thq. Size 2-7/8"	Wt. 7.9#	d 2.25	Set At 12,280	Perforations: From To		Unit Sec. Twp. Rge. N 26 23-S 34-E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 12,280'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 179 @ TD		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 12,259	H 12,259	G _g .6353	% CO ₂ 0.636	% N ₂ 0.422	% H ₂ S -	Prover	Meter Run 4.026	Taps Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
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	
SI							8451		Packer		115.5 Hrs.
1.	4.026" x 2"			1240	41"	100°	2200		Packer		24 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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	18.917	226.67	1253.2	.9636	1.2549	1.081	5605
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>Dry</u> Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons <u>Dry</u> Deg.
2.					Specific Gravity Separator Gas <u>.6353</u> X X X X X X X X
3.					Specific Gravity Flowing Fluid <u>X X X X X</u>
4.					Critical Pressure <u>685.2</u> P.S.I.A. P.S.I.A.
5.					Critical Temperature <u>374</u> R R

P _c <u>5847.2</u> P _c ² <u>34,190</u>					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{34,190}{23,318}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.466$
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²		
1		3297.2	10,872	23,318		
2						
3						
4						
5						

Absolute Open Flow <u>8218</u> Mcfd @ 15.025			Angle of Slope ϕ <u>35</u>	Slope, n <u>1.0</u>
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Remarks: Well flowed at high rate to unload & clean up. When clean, to conserve energy and minimize flaring gas, a 1 point back pressure test was used in calculating the AOF. The slope M was assumed to be 1 to calculate AOF.

Approved By Commission <i>[Signature]</i>	Conducted By: WEST ENGR.	Calculated By: W. L. Laflin, Jr.	Checked By: J. A. Detterick
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