

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 04/01/77			
Company Atlantic Richfield Company				Connection Northern Natural Gas Company					
Pool Eumont				Formation Yates-Seven Rivers Queen				Unit	
Completion Date December 1954		Total Depth 3920		Plug Back TD 3870		Elevation 3636 G.L.		Farm or Lease Name State F D&E	
Csg. Size 5 1/2	Wt. 15.5	d 4.95	Set At 3919	Perforations: From 3858 To 3868		Well No. 4			
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 3834	Perforations: From Open Ended To		Unit M	Sec. 19	Twp. 21S	Rge. 36E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 3803		County Lea	
Producing Thru Tbg		Reservoir Temp. °F 84 @		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 3834	H 3834	Gg 0.722	% CO ₂ 4.33	% N ₂ 1.02	% H ₂ S 0.78	Prover	Meter Run 4	Taps Pipe	

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							176	60	Pkr		69.3 Hrs
1.	4 x 1.0			111	2.8	67	155	60			1 Hr.
2.	4 x 1.0			110	6.5	64	150	60			1 Hr.
3.	4 x 1.0			110	14.8	60	138	60			1 Hr.
4.	4 x 1.0			108	29	57	113	60			1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.939	18.64	124.2	0.9933	1.177	1.0	108
2.	4.939	28.29	123.2	0.9961	1.177	1.0	163
3.	4.939	42.7	123.2	1.0000	1.177	1.0	248
4.	4.939	59.28	121.2	1.00289	1.177	1.0	346
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 84.243 Mcf/bbl.
1.	0.18	527	1.36	1.0	A.P.I. Gravity of Liquid Hydrocarbons 32.6 Deg.
2.	0.18	524	1.35	1.0	Specific Gravity Separator Gas 0.722 X X X X X X X X
3.	0.18	520	1.34	1.0	Specific Gravity Flowing Fluid X X X X X 0.764
4.	0.17	517	1.33	1.0	Critical Pressure 685 P.S.I.A. 684 P.S.I.A.
5.					Critical Temperature 388 °R 402 °R

P _c 189.2	P _c ² 35.8	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{2.007}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2.007}$
NO.	P _r ²	P _w	P _w ²
1	28.3		23.5
2	26.6		27.0
3	22.9		23.9
4	15.9		18.0
5			

Absolute Open Flow 694 Mcfd @ 15.025		Angle of Slope θ 45°	Slope, n 1.0
Remarks:			
Approved By Commission: <i>[Signature]</i>			
Conducted By: <i>[Signature]</i>		Calculated By: <i>[Signature]</i>	
		Checked By: <i>[Signature]</i> L. C. Hudry	

RECEIVED

APR 11 1977

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FEDERAL BUREAU OF INVESTIGATION