

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

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Form O-122
Revised 9-1-65

MAR 18 1985

O. C. O.

ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 5-7-84	
Company Santa Fe Energy Company ✓		Connection	
Pool Dublin Ranch (Morrow)		Formation Morrow	
Completion Date 5-6-84		Total Depth 12,880	Plug Back TD 12,575
Elevation 3066KB		3051 GL	
Farm or Lease Name N.E. Loving 34 Federal		Well No. 1	
Csg. Size 4 1/2"	Wt. 11.6#	d 4.000	Set At 12,880
Perforations: 66 From 12244 To 12272		Well No.	
Thg. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 12,007
Perforations: From 12392 To 12399		Unit Sec. Twp. Rge. G 34 22S 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple		Packer Set At 12007	
Producing Thru Tubing		Reservoir Temp. °F 197 @ 11972	Mean Annual Temp. °F 70
Baro. Press. - P _a 13.2		State New Mexico	
L 12322	H 12322	G _g 0.597	% CO ₂ 1.95
% N ₂ 3.60		% H ₂ S 0	Prover
Meter Run X		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	57 hours										
1.	4.026	X	1.500	275	5.0	53	3470	74	Pkr.	-	60 mins.
2.	4.026	X	1.500	280	14.0	116	2980	76	Pkr.	-	60 mins.
3.	4.026	X	1.500	280	19.0	88	2630	76	Pkr.	-	60 mins.
4.	4.026	X	1.500	280	38.0	96	2620	77	Pkr.	-	120 mins.
5.	4.026	X	1.500	650	41.0	88	1745	76	Pkr.	-	75 mins.

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	10.84	37.961	288.2	1.007	1.294	1.023	548.538
2	10.84	64.069	293.2	0.9501	1.294	1.016	867.510
3	10.84	74.638	293.2	0.9741	1.294	1.019	1039.205
4	10.84	105.554	293.2	0.9671	1.294	1.018	1457.664
5	10.84	164.898	663.2	0.9741	1.294	1.047	2359.007

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	N/A	Mcf/bbl.
1.	USED SIMPLIFIED				A.P.I. Gravity of Liquid Hydrocarbons	N/A	Deg.
2.	SUPERCOMPRESSIBILITY				Specific Gravity Separator Gas	0.597	X X X X X X X X
3.	TABLE				Specific Gravity Flowing Fluid	X X X X X	
4.					Critical Pressure	694	P.S.I.A.
5.					Critical Temperature	345	R

NO.	P _f	P _s	P _s ²	P _f ² - P _s ²
1	5252.2	27586		
1	4514.2	20378	7208	
2	4170.2	17391	10195	
3	3985.2	15882	11704	
4	3702.2	13706	13880	
5	2627.2	6902	20684	

$$(1) \frac{P_f^2}{P_f^2 - P_s^2} = 1.33369$$

$$AGP = 2 \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 3146.179$$

$$(2) \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 1.33369$$

Absolute Open Flow	3146.179	Mcf @ 15.025	Angle of Slope @	45.0°	Slope, n	1.0000
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Remarks: BHP measured with Amerada RPG-3 gauge No. 47612, 0-8000 P.S.I. Range

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: C. M. Avery, Jr.	Checked By:
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