

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT / ONE POINT BACK PRESSURE TEST OR GAS WELL

1-57
1-File Form C-122
Revised 9-1-65
1-C-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3-7-79		APR 24 1979		
Company Southland Royalty Company ✓					Connection Undesignated				
Pool Undesignated (Morrow)					Formation Morrow		Unit O. C. C. ARTESIA, OFFICE		
Completion Date 2 24 79		Total Depth 11880		Plug Back TD 11838		Elevation 3323		Farm or Lease Name STATE 24	
Csg. Size 4.500	Wt. 11.6	d 4.000	Set At 11880	Perforations: From 11422 To <u>11562</u>		Well No. 1			
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 11194	Perforations: From <u>11494</u> To <u>11562</u>		Unit Sec. Twp. Rge. L 24 19 29			
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single					Packer Set At 11194		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 176 @ 11492		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State New Mexico	
L 11492	H 11492	G _g 0.679	% CO ₂ 0.55	% N ₂ 0.38	% H ₂ S 0.	Prover 0.	Meter Run 2.1	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							3405	57.			36.0
1.	2.07 x 1.250			340	4.8	69.	2900	60.	0.	0.	1.0
2.	2.07 x 1.250			348	17.4	69.	2580	62.	0.	0.	1.0
3.	2.07 x 1.250			350	38.4	69.	2420	63.	0.	0.	1.0
4.	2.07 x 1.250			354	67.2	67.	2180	65.	0.	0.	1.0
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	8.12	41.17	353.2	0.9915	1.2136	1.0369	417
2	8.12	79.28	361.2	0.9915	1.2136	1.0377	803
3	8.12	118.10	363.2	0.9915	1.2136	1.0379	1197
4	8.12	157.09	367.2	0.9933	1.2136	1.0390	1597
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.53	529	1.39	0.930	175.0	57.5	0.679	X X X X X	670	381
2.	0.54	529	1.39	0.929				X X X X X		
3.	0.54	529	1.39	0.928						
4.	0.55	527	1.38	0.926						
5.										

P _c 3426.4 P _c ² 11740				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	8487	2918	8513	3227
2	6725	2596	6739	5001
3	5920	2439	5950	5790
4	4810	2204	4856	6883
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7055$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2723$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7055$

Handwritten: 1.7055

Absolute Open Flow <u>2723</u> Mcfd @ 15.025		Angle of Slope θ <u>45.0</u>	Slope, n <u>1.000</u>
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Remarks: Graph did not agree with calculation, probably the tubing was plugging with solids. Another C-122 will be submitted after the well is on the line.

Approved By Commission:	Conducted By: B. J. Testing	Calculated By: D. R. Craig	Checked By: D. R. Craig <i>one</i>
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