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NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
FEB 7 1977Form C-122
Revised 6-1-65

JF
File
102/100

Type Test ☒ Initial O. G. C. ☐ Annual ☐ Special		Test Date 1-27-77	
Company Samedan Oil Company		Connection None at present	
Pool South Carlsbad <i>Morrow</i>		Formation Morrow	
Completion Date 1-27-77		Total Depth 11,830'	Plug Back TD 11,825'
		Elevation 3297.6'	
Farm or Lease Name Exxon State Com.		Well No. 1	
Csg. Size 4 1/2"	wd 11.6# 13.5#	d 4.0 3.92	Set At 11,825'
Perforations: From 11,401 To 11,597		Well No. 1	
Thq. Size 2 3/8"	Wt. 4.7#	d 1.9	Set At 11,295'
Perforations: open ended From To		Unit Sec. Twp. Rge. J 34 235 26E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single		Packer Set At 11,295'	County Eddy
Producing Thru tbq.	Reservoir Temp. °F 183 @ 11350	Mean Annual Temp. °F 60°	State New Mexico
L 11295	H	Gg .5805	% CO ₂ 1.350
		% N ₂ .284	% H ₂ S 0
		Positive Choke	Meter Run Taps

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	Positive Choke 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			3260			3260				
1.	2	8/64"	2960		44	2960	44			1 Hr.
2.	2	10/64"	2545		51	2545	51			1 Hr.
3.	2	12/64"	2200		54	2200	54			1 Hr.
4.	2	14/64"	1640		57	1640	57			1 Hr.
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	.2618		2973.2	1.016	1.313	1.170	1215
2	.4173		2558.2	1.009	1.313	1.161	1642
3	.6101		2213.2	1.006	1.313	1.162	2072
4	.8419		1653.2	1.003	1.313	1.142	2093
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Mcfd/bbl.
1	4.424	504	1.440	.731	A.P.I. Gravity of Liquid Hydrocarbons	None Produced
2	3.806	511	1.460	.742	Specific Gravity Separator Gas	.5805
3	3.293	514	1.468	.740	Specific Gravity Flowing Fluid	X X X X X
4	2.460	517	1.477	.767	Critical Pressure	672 P.S.I.A.
5					Critical Temperature	350 R

NO.	P _f ²	P _s	P _s ²	P _s ² - P _f ²	(1) $\frac{P_f^2}{P_s^2 - P_f^2} = \frac{4178.2}{12,699}$	(2) $\left[\frac{P_f^2}{P_s^2 - P_f^2} \right]^n = 1.1725$
1		3780.2	14,290	3167		
2		3320.2	11,024	6433		
3		2869.2	8,232	9225		
4		2181.2	4,758	12,699		
5						

AOF = Q $\left[\frac{P_f^2}{P_s^2 - P_f^2} \right]^n = 2,454$

Absolute Open Flow 2,450 Mcfd @ 15.025 Angle of Slope $\theta = 63\frac{1}{2}^\circ$ Slope, n .500

Remarks:

Approved By Commission:	Conducted By: Tom Hansen Co.	Calculated By: Harrington	Checked By: R. Turner
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