

1-File
1-57
1-C-122 File
Form C-122
Revised 6-1-65

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

APR 12 1978

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-29-78		O. C. C. ARTESIA, OFFICE	
Company Beard Oil Co. ✓				Connection Air			
Pool Wildcat				Formation Atoka		Unit K	
Completion Date 3-14-78		Total Depth 7200		Plug Back TD 7112		Elevation 3808 GL	
Csg. Size 4 1/2		Wt. 10.5 11.6		Set At 7160		Perforations: From 7022 To 7034	
Thg. Size 2 3/8		Wt. J55		Set At 6975		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.C. Multiple Single				Packer Set At 6975		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 144 @ 6975		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 6975		H 6975		Gg .606		% CO ₂ .69	
				% N ₂ 1.77		% H ₂ S	
				Prover		Meter Run 3"	
						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							1590				72 hr
1.	3	X	1.000	355	6.5	75	1500				1 hr
2.	3	X	1.000	365	14.0	80	1430				1 hr
3.	3	X	1.000	375	26.0	81	1320				1 hr
4.	3	X	1.000	380	50.0	79	1120				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	4.789	48.92	368.2	.9859	1.285	1.031	306
2	4.789	72.77	378.2	.9813	1.285	1.030	453
3	4.789	100.46	388.2	.9804	1.285	1.032	626
4	4.789	140.21	393.2	.9822	1.285	1.033	875
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	.55	535	1.48	.941	Dry		.606	X X X X X X X X	671	362
2	.56	540	1.49	.942						
3	.58	541	1.49	.939						
4	.59	539	1.49	.938						
5										

NO.	P _t	P _w	P _w ²	P _c ² - P _w ²
1	1603.2	1513.9	2291.8	278.5
2	2570.3	1444.7	2087.2	483.1
3		1336.3	1785.8	784.5
4		1140.6	1301.0	1269.3
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.025$

AOF = C $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.424$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.627$

Partial
4/14/78
57.690

Absolute Open Flow	1,424	Mcf @ 15.025	Angle of Slope	55.5°	Slope, n	57.690
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Remarks:	
Approved By Commission:	Conducted By: Larry Davis
Calculated By: Larry Davis	Checked By: