

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

Form G-22
Revised 9-1-65

Copy to J.

JUL 25 1968

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-2-68		O C C	
Company Cities Service Oil Co.				Connection 6-10-68			
Pool McMillan Morrow Gas				Formation Morrow		Unit	
Completion Date 2-6-68		Total Depth 10,516		Plug Back TD 10,447		Elevation	
Farm or Lease Name State CJ <i>Comm</i>							
Csq. Size 5 1/2	Wt. 17 & 20#	d	Set At 10,515	Perforations: From 10,240 To 10,349		Well No. 1	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10,148	Perforations: From Open To ended		Unit Sec. Twp. Rge. G 24 20S 26E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single completion w/packer				Packer Set At 10,150		County Eddy	
Producing Thru Tbg		Reservoir Temp. °F 160 @ 10,300		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 10,150	H 10,150	G _g .610	% CO ₂ .61	% N ₂ .2	% H ₂ S -	Prover Orifice	Meter Run 4
				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							3201	60			
1.	4"		1 1/2	7.19	4.70	68	3037	60			4 hrs
2.	4"		1 1/2	7.22	7.90	62	2856	60			1 hr
3.	4"		1 1/2	7.22	8.50	61	2805	63			1 hr
4.	4"		1 1/2	7.27	9.75	63	2694	65			1 hr
5.	Meter chart - L-10- 50# by 2000#						M-3.1623				

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	106.86	1032.5	.9924	1.280	1.088	1600.9
2	10.84	180.37	1041.1	.9981	1.280	1.093	2730.2
3	10.84	194.07	1041.1	.9990	1.280	1.093	2940.2
4	10.84	224.15	1055.6	.9971	1.280	1.094	3392.6
5							

NO.	R _f	Temp. °R	T _f	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.	1.54	528	1.43	.845	48,640	52	.610	1.73	671	360
2.	1.55	522	1.45	.837						
3.	1.55	521	1.45	.837						
4.	1.57	523	1.45	.835						
5.										

$P_c = 3214.2$ $P_c^2 = 10,331.1$				$(1) \frac{P_c^2}{P_c^2 - R_w^2} = 3.8801$	$(2) \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 2.575$	
NO	P _f ²	P _w	P _w ²	P _c ² - P _w ²		
1	9303.7	3065.7	9398.5	932.6		
2	8232.3	2907.2	8451.8	1879.3		
3	7942.3	2863.2	8197.9	2133.2		
4	7328.9	2769.2	7668.5	2662.6		
5						

$AOF = Q \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 8.74$			
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Absolute Open Flow	8740	Mcfd @ 15.025	Angle of Slope θ	Slope, n	.697
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Remarks: Point 4 was obtained at the largest flow rate which ~~xxxx~~ could be obtained through a 1 1/2 orifice.

Approved By Commission:	Conducted By: J. Sexton	Calculated By: J. Sexton	Checked By:
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