

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

Form C-122
Revised 9-7-65

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Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 7/10/78		JUL 27 1978					
Company Depco, Incorporated ✓				Connection							
Post Undesignated <i>Sand Ranch</i> Atoka Morrow				Formation Atoka		Unit ARTESIA, OFFICE					
Completion Date 7/10/78		Total Depth 9770'		Plug Back TD 9724'		Elevation 3948'GL					
Csg. Size 4 1/2"		WT. 11.6		d 4.000		Set At 9770'					
Thg. Size 2-3/8"		WT. 4.7		d 1.995		Set At 9220'					
Perforations: From 9263' To 9292'				Well No. 2							
Perforations: From Open Ended To				Unit G		Sec. Twp. Rge. 23 10s 29e					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9220'		County Chaves					
Producing Thru Tubing		Reservoir Temp. °F 172 @ 9346'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2					
L 9278'		H -		G _g 0.6848		% CO ₂ 1.098					
				% N ₂ 1.279		% H ₂ S 0.000					
				Flover		Meter Run -					
				Taps F							
FLOW DATA				TUBING DATA		CASING DATA					
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2170				116.5
1.	2 3/64	1.250	490	2.25	100	2140	78	PACKER		1.0	
2.	2 7/64	1.250	510	6.76	92	2060	79			1.0	
3.	2 9/64	1.250	510	12.96	89	2005	84			1.0	
4.	2 11/64	1.250	530	28.09	82	1885	85			2.0	
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Rate of Flow Q, Mcfd					
1	8.120	33.65	503.2	0.9636	1.041	331.10					
2	8.120	59.47	523.2	0.9706	1.045	591.67					
3	8.120	82.35	523.2	0.9732	1.208	822.28					
4	8.120	123.53	543.2	0.9795	1.208	1246.20					
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 38.369 Mcf/bbl.						
1	0.75	560	1.49	.923	A.P.I. Gravity of Liquid Hydrocarbons - - - - - Deg.						
2	0.78	552	1.47	.916	Specific Gravity Separator Gas 0.6848 X X X X X X X X X						
3	0.78	549	1.46	.914	Specific Gravity Flowing Fluid X X X X X						
4	0.81	542	1.44	.907	Critical Pressure 674 P.S.I.A. - - - - - P.S.I.A.						
5					Critical Temperature 376 R - - - - - R						
P _c 3005.2		P _w 9031.2									
NO.	P _c ²	P _w ²	P _w ² *	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 35.196$					
1		2962.2	8774.6	256.6		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10.59$					
2		2899.2	8405.4	625.8							
3		2797.2	7824.3	1206.9							
4		2672.2	7140.7	1890.5		ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3506$					
5											
Absolute Open Flow 3506 Mcfd @ 15.025				Angle of Slope @ 56° 29'				Slope, n 0.662			
Remarks: * Bottom Hole Pressure @ (-5330) 9278' Used for Pressure Calculations											
Approved By Commission:			Conducted By: JARREL SERVICES, INC			Calculated By: Joe A. Coleman			Checked By: <i>[Signature]</i>		

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JUL 17 1978
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

*Post 2 + 1002
7-28-78
SI*