

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

Form C-122
 Revised 9-1-77

Type Test: ☒ Initial ☐ Annual ☐ Special						Test Date: 1-23-80	
Company: Union Oil Co. of California				Connection:			
Fluid: Undesignated Morrow Gas				Formation: Morrow		Unit:	
Completion Date: 1-19-80		Total Depth: 13,490'		Plug Back To: 13,445'		Elevation:	
Csg. Size: 5" OD		Wt.: 18#		ID: 4.276"		Set At: 13,489'	
Trq. Size: 2-7/8" OD		Wt.: 6.5#		ID: 2.441"		Set At: 11,985'	
Perforations: From 13,381' To 13,390'				Well No.: 2			
Perforations: From To				Unit: N 26 19-S 33-E			
Type well - Single - Prodenhead - G.O. or G.O. Multiple: Single						Packer Set At: 11,985'	
Producing Thru: Tubing						County: Lea	
Reservoir Temp. °F: 170 @ 13,381'		Mean Annual Temp. °F: 60		Baro. Press. - P _a : 13.2		State: New Mexico	
L: 13,381'	H: 13,381'	Gg: .694	% CO ₂ : .40	% N ₂ : .90	% H ₂ S: 0.0	Prover: 0.0	Meter Run: 3.8
Flange: Flange							

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow Hrs.	
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							3994	60			288
1.	3.83		1.250	491	6.2	90	3450	65	0	0	1.8
2.	3.83		1.250	527	30.2	90	2680	68	0	0	2.0
3.	3.83		1.250	527	54.8	84	2070	65	0	0	2.0
4.	3.83		1.250	527	90.2	90	1510	67	0	0	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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.48	56.16	504.6	.9723	1.2004	1.0480	514
2	7.48	127.81	540.0	.9723	1.2004	1.0514	1,174
3	7.48	171.96	540.0	.9777	1.2004	1.0533	1,591
4	7.48	220.76	540.0	.9723	1.2004	1.0514	2,027
5.							

NO.	P _r	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.	.76	550	1.43	.911	18.518	58.0	.694	.829	668	385
2.	.81	550	1.43	.905						
3.	.81	544	1.41	.901						
4.	.81	550	1.43	.905						
5.										

NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²
1		3459	11967	4091
2		2682	7194	8864
3		2079	4320	11737
4		1514	2293	13764
5				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.1666$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2,365$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.1666$

Absolute Open Flow: 2,365 Mcfd @ 15.025	Angle of Slope: 45.0	Slope, n: 1.000
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Remarks: **Calculations completed using Garrett Computing System's AOF program.**

Approved By Construction:	Conducted By: Clark Bagley	Calculated By: M. F. Standifer	Checked By: L. H. Pardue
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