

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-29-81		APR 06 1981	
Company Aminoil U.S.A. INC. ✓				Concession E.P.N.G.		O. C. D. ARTESIA, OFFICE	
Well Malaga <i>morrow</i>				Formation Morrow		Unit	
Completion Date 3-21-81		Total Depth 12800		Plug Back To 12700		Elevation	
Csg. Size 7 5/8 & 4 1/2		d 11998 12800		Perforations: From 12306 To 12657		Well No. # 1	
Tub. Size 2 7/8 & 2 3/8		d 11139 12259		Perforations: From To		Unit Sec. Twp. Rge. J 10 24s 28e	
Type well - Single - Production - G.G. or G.O. Multiple Single Gas				Packer Set At 12230		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 196° 12230		Mean Annual Temp. °F 60°		State New Mexico	
L * 14424		H * 14424		Gg .579		Prover	
				% CO ₂ 1.268		% H ₂ S .890	
						Meter Run 4"	
						Flg.	

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							5100				24 hrs.
1.	4 X .875			289	12.25	76	4850				1 hr.
2.	4 X .875			289	25.00	76	4675				1 hr.
3.	4 X .875			300	49.00	74	4475				1 hr.
4.	4 X .875			300	100.00	68	4280				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, Mgd
1	3.630	60.84	302.2	.9850	1.314	1.022	292
2	3.630	86.92	302.2	.9850	1.314	1.022	417
3	3.630	123.88	313.2	.9868	1.314	1.023	597
4	3.630	176.97	313.2	.9924	1.314	1.024	858
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/Ubl.
1	.45	536	1.53	.957	Dry	
2	.45	536	1.53	.957	A.P.I. Gravity of Liquid Hydrocarbons	
3	.47	534	1.53	.953	Specific Gravity Separator Gas .579	X X X X X X X X
4	.47	528	1.51	.953	Specific Gravity Flowing Fluid X X X X X	
5					Critical Pressure 672 P.S.I.A.	P.S.I.A.
					Critical Temperature 350 R	R

NO.	P _t	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	4864.3	23661.4	2483.4		3.398	3.398
2	4689.2	21988.6	4156.2			
3	4489.6	20156.5	5988.3			
4	4295.5	18451.3	7693.5			
5						

Absolute Open Flow 2,916 Mcf @ 15.025		Angle of Slope α 45°		Slope, n 1.000	
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Remarks: * Equivalent length calculated for the tapered flow string of 11139 ft. of 2 7/8 tubing and 1120 ft. of 2 3/8 tubing converted to 14424 ft. of 2 7/8 tubing.

Approved By Concession:	Conducted By: Davis Services Inc.	Calculated By: Rick Pagan	Checked By:
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