

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

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O. C. D.

ARTESIA, OFFICE

Form O-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 8-23-83	
Company Amoco Production Company		Connection To Atmosphere	
Pool Loving Atoka North		Formation Atoka	
Completion Date 8-24-83		Total Depth 11600	Plug Back TD 11598
Elevation 3042		Farm or Lease Name Cimarron RB Fed	
Csg. Size 4.500	Wt. 15.1	d 3.826	Set At 11600
Perforations: From 11495 To 11507		Well No. 1	
Tbg. Size 2.875	Wt. 6.5	d 2.441	Set At 11465
Perforations: From 0 To 0		Unit Sec. Twp. Rge. 34 22 28	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 9353	County Eddy
Producing Thru Tubing	Reservoir Temp. *F 182 @ 11501	Mean Annual Temp. *F 60.0	Baro. Press. - P _a 13.2
State New Mexico			
L 11501	H 11501	G _g 0.585	% CO ₂ 0.54
% N ₂ 1.16	% H ₂ S 0	Prover 0	Meter Run 2.9
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.	
SI										
1.	2.90 x 1.500			500	10.0	100	5640	60		
2.	2.90 x 1.500			500	17.0	100	5336	62	0	0
3.	2.90 x 1.500			500	33.0	100	5202	62	0	0
4.	2.90 x 1.500			500	69.0	100	4922	62	0	0
5.							4425	62	0	0

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	11.23	71.64	513.2	0.9636	1.3074	1.0307	1045
2	11.23	93.40	513.2	0.9636	1.3074	1.0307	1362
3	11.23	130.14	513.2	0.9636	1.3074	1.0307	1898
4	11.23	188.18	513.2	0.9636	1.3074	1.0307	2745
5							

NO.	R _t	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.76	560	1.60	0.941	0	
2	0.76	560	1.60	0.941	0	
3	0.76	560	1.60	0.941	0.585	
4	0.76	560	1.60	0.941	0.585	
5						

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	28614	5351	28635	3324
2	27198	5218	27230	4729
3	24356	4941	24410	7548
4	19698	4449	19797	12162
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.6278$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.0565$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5644$

Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.

Specific Gravity Separator Gas 0.585 X X X X X X X X

Specific Gravity Flowing Fluid X X X X X 0.585

Critical Pressure 674 P.S.I.A. 674 P.S.I.A.

Critical Temperature 350 R 350 R

Absolute Open Flow <u>5644</u> Mcfd @ 15.025	Angle of Slope θ <u>53.3</u>	Slope, n <u>0.746</u>
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Remarks:

Approved By Commission:	Conducted By: Jarrel W. Testing	Calculated By: Barbara Wagner	Checked By: Winston Smith
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