

NEW 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 3-09-81		JUN 08 1981 O. C. D.	
Company Amoco Production Co.				Connection Cabot Corporation			
Pool Empire South <i>Morrow</i>				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 1-23-81		Total Depth 11,119		Plug Back TD 10,976		Elevation 3678	
Csg. Size 5.500		Wt. 15.5		d 4.950		Set At 11,119	
Perforations: From 10726		To 10804		Well No. 21			
Tbg. Size 2.875		Wt. 6.5		d 2.441		Set At 10,822	
Perforations: From		To		Unit A		Sec. Twp. Rge. 6 17S 28E	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 10,608		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 193 @ 10,765		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
State New Mexico							
L 10,765		H 10,765		G _g 0.671		% CO ₂ 0.57	
				% N ₂ 0.65		% H ₂ S 0	
Prover 0		Meter Run 4.0 (Flange)		Taps			

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	SI						1627	64	0	0	1.0
1.	4.00 x 2.750			495	4.0	100	1609	64	0	0	0.5
2.	4.00 x 2.750			568	18.0	89	1525	67	0	0	0.5
3.	4.00 x 2.750			656	34.0	89	1408	67	0	0	0.5
4.	Not Available			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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, F _{pv}	Rate of Flow Q, Mcfd
1	41.23	45.09	508.2	0.9636	1.2207	1.0421	2279
2	41.23	102.28	581.2	0.9732	1.2207	1.0521	5271
3	41.23	150.84	669.2	0.9732	1.2207	1.0601	7833
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.76	560	1.48	0.921	A.P.I. Gravity of Liquid Hydrocarbons	57.6
2.	0.87	549	1.45	0.903	Specific Gravity Separator Gas	0.671
3.	1.00	549	1.45	0.890	Specific Gravity Flowing Fluid	X X X X X
4.	N/A	N/A	N/A	N/A	Critical Pressure	670
5.					Critical Temperature	378

P _c 1640.2 P _c ² 2690					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 195.49$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 51.733$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 117,900$			
1	2632	1636	2676	13.76				
2	2366	1623	2634	56.13				
3	2020	1623	2634	56.13				
4	N/A	N/A	N/A	N/A				
5								

Absolute Open Flow 117,900		Mcf/d @ 15.025		Angle of Slope θ 53.2		Slope, n .748	
Remarks:							
Approved By Commission:		Conducted By: John West Engr.		Calculated By: Tim Sexton		Checked By: L.W. Sheppard	