

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

Form C-122
Revised 9-1-65

RECEIVED

Copy 651-
C-122

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-07-74		NOV 13 1974	
Company Estoril Producing Corporation				Connection Morrow		O. C. C. ARTESIA, OFFICE	
Pool Winchester				Formation Morrow		Unit	
Completion Date 10-07-74		Total Depth 11,340		Plug Back TD 11,200		Elevation 3272 GL	
Frm or Lease Name Shell-Federal				Well No. No. 1			
Csg. Size 4 1/2"	Wt. 13.5	d	Set At 11,317	Perforations: From 11,067 To 11,113		Unit Sec. Twp. Rge. 1 20-S 28-E	
Tbg. Size 2 3/8"	Wt. 4.9	d	Set At 11,036	Perforations: From openend To			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,720		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 177°		Meqn Annual Temp. °F 70°		Baro. Press. - P _a 13.2	
L		H	Gg .690	% CO ₂	% N ₂	% H ₂ S	Prover 2"
							Meter Run 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	
1.	2	x 1/8					3252	60	Pkr.		
2.	2	x 5/32					2994	62			1 hr.
3.	2	x 3/16					2620	64			1 hr.
4.	2	x 7/32					2282	64			1 hr.
5.							2042	64			1 hr.

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.	.2618		3007	.9981	1.204	1.185	1121
2.	.4173		2633	.9962	1.204	1.208	1592
3.	.6101		2295	.9962	1.204	1.221	2050
4.	.8419		1955	.9952	1.204	1.224	2413
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____
3.					Specific Gravity Flowing Fluid _____
4.					Critical Pressure _____ P.S.I.A.
5.					Critical Temperature _____ R

P _c 3265 P _c ² 10660		(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 10660$		(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.559$	
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²	
1		3007	9042	1618	
2		2633	6933	3727	
3		2295	5267	5393	
4		1955	3822	6838	
5					

Absolute Open Flow 3797		Angle of Slope θ 53		Slope, n 754	
Remarks: Shut in gas well					
Approved By Commission:		Conducted By: C. Allen Dorsey		Calculated By: C. Allen Dorsey	
				Checked By:	