

**NE. MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122
Revised 9-1-67

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 8-31-80	
Company: Estoril Producing Corp.				Connection: Air	
Field: Lea "Penn" Field				Formation: Morrow	
Completion Date:		Total Length: 13600		Elevation: 3644.4 GL	
Casing Size: 5 1/2		Set At: 13600		Perforations: From 13126 To 13214	
Tubing Size: 2 3/8		Set At: 13019		Perforations: From To	
Type Well - Single - Brodenhead - G.O. or G.O. Multiple				Packer Set At: 12987	
Producing Thru: Tbg.				State: New Mexico	
Reservoir Temp. °F: 203		Mean Annual Temp. °F: 60		Baro. Press. - P _a : 13.2	
L: 12900	R: 12900	G _g : .6716	% CO ₂ : .499	% N ₂ : 1.900	% H ₂ S:
Prover:				Meter Run: 4"	
Taps: Flg.					

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow		
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F		Press. p.s.i.g.	Temp. °F
51							3600				72 Hr.
1.	4 x .750			450	4.0	95	3045				1 Hr.
2.	4 x .750			485	12.0	95	2660				1 Hr.
3.	4 x .750			480	26.0	85	2280				1 Hr.
4.	4 x .750			485	58.0	94	1800				1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mfd
1	2.661	43.04	463.2	.9680	1.220	1.041	141
2	2.661	77.32	498.2	.9680	1.220	1.044	254
3	2.661	113.24	493.2	.9768	1.220	1.047	376
4	2.661	170.00	498.2	.9688	1.220	1.044	558
5.							

NO.	η	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.	.69	555	1.45	.922	13.844	50.8 @ 60	.6716		669	382
2.	.74	555	1.45	.917						
3.	.74	545	1.43	.913						
4.	.74	554	1.45	.917						
5.										

NO.	BHP	P _w	P _w ²	P _e ² - P _w ²	(1) $\frac{P_e^2}{P_e^2 - P_w^2}$	(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n$
1	5079.2	3788.7	14354.6	3690.6	1.349	1.349
2	4620.2	3410.4	11630.6	6414.6		
3	4007.2	2915.0	8497.5	9547.7		
4	3013.2	2161.4	4671.8	13373.4		
5	5621.2	S.I.P.				

Absolute Open Flow: 753	Mcf/D @ 15.025	Angle of Slope θ : 45°	Slope, n: 1.000
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Remarks: *Calculated from B.H.P.'s taken at 12900'. The well produced 4 BBls. of distillate during the test.

Approved By: <i>Sam W. Kuyper</i>	Conducted By: Davis Services, Inc.	Calculated By: Rick Pagan	Checked By:
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