

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

Form C-122
Revised 9-1-61

Type Test ☒ Initial After Gas Connection ☐ Annual ☐ Special		Test Date 10- 1-79	
Company Union Oil Co. of California		Connection Llano, Inc.	
Pool Undesignated		Formation Morrow	
Completion Date 2- 3-79		Total Depth 14,753'	Plug Back TD 13,936'
		Elevation 3596' GR.	
Form. or Lease Name Laguna Deep Unit Federal			
Csg. Size 5-1/2"	Wt. 17#	d 4.892"	Set At 14,348'
Perforations: From 13,365' To 13,369'		Well No. 1	
Tq. Size 2-7/8"	Wt. 6.5#	d 2.441"	Set At 13,060'
Perforations: From _____ To _____		Unit G	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 13,060'	County Lea
Producing Thru Tubing	Reservoir Temp. °F 149° 12,978'	Mean Annual Temp. °F 70	State New Mexico
L 13,367'	H 13,367'	Gg .672	% CO ₂ .40
		% N ₂ .90	% H ₂ S 0.0
		Prover 0.0	Meter Run 3"
			Flange

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow Hrs.
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							4250	40			48.0
1.	3.00	x	1.625	451	1.5	82	3894	90	0	0	1.5
2.	3.00	x	1.625	452	5.5	79	3320	90	0	0	2.0
3.	3.00	x	1.625	460	11.0	75	2600	90	0	0	2.0
4.	3.00	x	1.625	460	18.0	70	2040	90	0	0	2.0
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, Fpv	Rate of Flow Q, Mscf
1	13.30	26.39	464.2	.9795	1.2199	1.0436	438
2	13.30	50.58	465.2	.9822	1.2199	1.0445	842
3	13.30	72.15	473.2	.9859	1.2199	1.0463	1,207
4	13.30	92.29	473.2	.9905	1.2199	1.0476	1,554
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NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/Lbl.
1	.69	542	1.43	.918	58.0
2	.70	539	1.43	.917	
3	.71	535	1.42	.913	
4	.71	530	1.40	.911	
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$P_c 4305.3$ $P_w^2 18536$					Gas Liquid Hydrocarbon Ratio 24.866 Mcf/Lbl. A.P.I. Gravity of Liquid Hydrocarbons 58.0 Deg. Specific Gravity Separator Gas .672 Y X X X X X X X Y Specific Gravity Flowing Fluid X X X X X .775 Critical Pressure 669 P.S.I.A. 664 P.S.I.A. Critical Temperature 378 R 410 R
NO.	P _r	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2709$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2485$ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1940$
1		3850	14824	3712	
2		3271	10697	7838	
3		2546	6483	12053	
4		1988	3951	14585	
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Absolute Open Flow 1,940 Mscf/D 15.625	Angle of Slope 47.2	Slope, n .926
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Remarks: **Calculations completed using Garrett Computing System's AOF Program.**

Approved By Commission:	Conducted By: D. K. Spradlin	Calculated By: D. Harris	Checked By: L. H. Pardue
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