

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

Form C-122
Revised 9-65

JUL 30 1974

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-16-74			
Company Union Oil Co. of California				Connection Llano, Inc.		ARTESIA, OFFICE		
Pool Undesignated Morrow Gas				Formation Morrow		Unit		
Completion Date 1-13-74		Total Depth 11,815'		Plug Back TD 11,786'		Elevation 3131' GR		Farm or Lease Name Wersell Co.
Csg. Size 5-1/2"	Wt. 17#	d 4.686	Set At 11,815'	Perforations: From 11,494' To 11,696'		Well No. 1		
Tbg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 11,410'	Perforations: From _____ To _____		Unit C	Sec. 3	Twp. 22-S
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 11,410'		County Eddy	
Producing Thru Tubing		Reservoir Temp. *F 174 @ 11,812'		Mean Annual Temp. *F 60		Baro. Press. - P _a 13.2		State New Mexico
L 11,595'	H 11,595'	G _g .600	% CO ₂ 1.0	% N ₂ 0.79	% H ₂ S 0	Prover	Meter Run 3"	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.		Temp. *F
SI	3.068	1.0	-	-	-	-	3900	66	Pkr	66	
1.	3.068	1.0	770	58	80	1794.0	82	82	Pkr	82	3 Hrs
2.	3.068	1.0	770	45	86	2100.0	82	82	Pkr	82	3 Hrs
3.	3.068	1.0	760	34	86	2475.0	82	82	Pkr	82	3 Hrs
4.	3.068	1.0	755	16	82	2900.0	84	84	Pkr	84	3 Hrs
5.											

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	4.789	213.133	783.2	.9813	1.291	1.058	1,368
2	4.789	187.700	783.2	.9759	1.291	1.056	1,196
3	4.789	162.138	773.2	.9759	1.291	1.055	1,032
4	4.789	110.866	768.2	.9795	1.291	1.055	709
5							

NO.	P _r	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	Specific Gravity Separator Gas _____ .600 _____ X X X X X X X X	Specific Gravity Flowing Fluid _____ X X X X X _____ .600	Critical Pressure _____ 674.21 _____ P.S.I.A. _____ P.S.I.A.	Critical Temperature _____ 354.63 _____ R _____ R
1.	1.162	540	1.523	.8928						
2.	1.162	546	1.540	.8976						
3.	1.147	546	1.540	.8986						
4.	1.139	542	1.528	.8972						
5.										

NO.	P _c 4996.2*	P _w 24962.0	P _c ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.290$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2662$
1	3265.9	2370	5616.9	19345.1			
2	4465.6	2762	7628.6	17333.4			
3	6191.1	3240	10497.6	14464.4			
4	8486.7	3767	14190.2	10771.8			
5							

Absolute Open Flow 1,732 Mcfd @ 15.025				Angle of Slope 42.8		Slope, n .927	
Remarks: *Flowing and shut in BHP were calculated using Cullender-Smith method adapted to computer. Print-out attached.							
Approved By Commission:		Conducted By: Clyde B. Green		Calculated By: John G. Hawkins		Checked By: H. R. Willis	