

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 8-7-70	
Company Union Oil Co. of California				Connection None			
Pool Undesignated				Formation Morrow		Unit	
Completion Date 8-7-70		Total Depth 14,370		Plug Back TD 14,405		Elevation 3862 GL	
Farm or Lease Name Pipeline Federal		Well No. 1					
Csq. Size 5-1/2"	Wt. 17 & 20	Set At 4.76-4.65	14,585	Perforations: From 13,420 To 13,442			
Tbg. Size 2-3/8"	Wt. 4.7	Set At 1.995	13,325	Perforations: From Open To			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13,375		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 200 @ 13,325		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 13,325	H 13,325	G _g 0.668	% CO ₂ 0.6	% N ₂ 0.6	% H ₂ S Sweet	Prover	Meter Run 6"
						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							4390				72 hr.
1.	6 x 3.0			580	7.5	84	4055	83	Per		1
2.	6 x 3.0			640	15.0	68	3550	83			1
3.	6 x 3.0			640	23.5	76	3550	85			1
4.	6 x 3.0			660	30.5	74	3275	86			1
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	44.51	60.7	502	0.9777	1.000	1.041	3,700
2	44.51	97.1	629	0.9924	1.223	1.046	5,490
3	44.51	124.2	656	0.9850	1.223	1.052	7,000
4	44.51	141.5	676	0.9868	1.223	1.052	8,000
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>9.080 (Average)</u> Mcf/bbl.
1	6.12	543	1.16	0.800	A.P.I. Gravity of Liquid Hydrocarbons <u>53.2</u> Deg.
2	5.72	543	1.16	0.738	Specific Gravity Separator Gas <u>0.668</u> X X X X X X X X
3	5.36	546	1.16	0.725	Specific Gravity Flowing Fluid <u>X X X X X</u> 0.9395
4	4.94	546	1.16	0.678	Critical Pressure <u>665</u> P.S.I.A. P.S.I.A.
5					Critical Temperature <u>462</u> °R °R

P _c <u>4403</u>	P _c ² <u>19,386,409</u>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{19,386,409}{4,736,368} = 4.09$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.30$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	
1		4131	17480761	1905648	
2		4062	16489844	2886565	
3		3972	15779784	3606625	
4		3821	14600041	4786368	
5					

Absolute Open Flow <u>26,400</u> Mcfd @ 15.025			Angle of Slope θ <u>49.6°</u>		Slope, n <u>0.852</u>	
Remarks:						
Approved By Commission: Conducted By: Keith Spradlin Calculated By: Larry Wright Checked By: Tom Burger						