

NE MEXICO OIL CONSERVATION COMM. ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-127
Revised 9-1-60

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Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9-8-83 SEP 21 8 30 AM '83			
Company Union Oil Co. of California				Connection None			
Fluid Undes. Silurian Gas				Formation Silurian			
Completion Date 8-28-83		Total Length 17597'		Plug Back To 3349' GR		Unit Red Hills Unit	
Csg. Size 7-1/2"	Wt. 46.10#	d 7.75"	Set At 16986	Perforations: From 17464' To 17512'		Well No. 3	
Tub. Size 2-7/8"	Wt. 6.50#	d 2.875"	Set At 16382'	Perforations: From To		Unit Sec. Twp. Rge. K 5 26-S 33-E	
Type Well - Casing - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 16354'		County Lea	
Producing thru Tubing		Reservoir Temp. °F 251 @ 17464'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.20	
L 17464		H 17464	Gg 592	% CO ₂ .59	% N ₂ 48	% H ₂ S .0	Prover .0
						Meter Run 4.0	
						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							5550	80			32.0
1.	4.03		1.25	300	9.0	78	5000	82	0	0	2.5
2.	4.03		1.25	300	38.0	88	2820	75	0	0	7.2
3.	4.03		1.25	300	80.0	80	1500	74	0	0	3.7
4.	4.03		1.25	300	17.0	95	450	72	0	0	2.5
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/d
1	7.47	53.09	313.2	9831	1.2997	1.0234	519
2	7.47	109.09	313.2	9741	1.2997	1.0219	1054
3	7.47	158.29	313.2	9813	1.2997	1.0231	1543
4	14.93	72.97	313.2	9680	1.2997	1.0208	1399
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.46	538	1.52	.955	0	0	.592	XXXXXXX	675	354
2.	.46	548	1.55	.958						
3.	.46	540	1.53	.955						
4.	.46	555	1.57	.960						
5.										

NO.	P _c	P _w	P _w ²	P _c ² - P _w ²
1		4980	24796	5827
2		2814	7921	22703
3		1513	2290	28334
4		492	242	30381
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0808$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1628$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0551$

Absolute Open Flow	1628	Mscf @ 14.655	Angle of Slope α	55.4	Slope, n	690
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Remarks: Calculations completed using Garrett Computing Systems AOF Program

Approved By: C. A. Bagley	Conducted By: M. F. Standifer	Checked By: L. H. Pardue
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SEP 26 1993

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