

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

Form C-122
 Revised 9-1-69

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12/22/71		MAR 20 1973	
Company A. J. O. Production Company				Connection Nona		O. C. C. ARTESIA OFFICE			
Pool Willcat				Formation Morrow Penn		Unit API No. 30-115-2-510			
Completion Date 12/11/71		Total Depth 10,168		Plug Back TD 10,000		Elevation 3587 KDB		Farm or Lease Name Valco "S" Federal	
Cat. Size 5-1/2"	Wt. 17#	d 4.822	Set At 5277	Perforations: From 9621 To 9929		Well No. 1			
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 9504	Perforations: From Open End To		Unit - Sec. Twp. Rge. F 11 13S 27E			
Type Well - Single - Bradenhead - G.O. or G.O. Multiple Single						Packer Set At 5491'		County Elm	
Producing Thru 2-3/8" Top		Reservoir Temp. °F 145 - 9775		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 9504	H 9504	Gg 0.630	% CO ₂ 0.33	% N ₂ 0.31	% H ₂ S 0	Prover -	Meter Run 6"	Tape 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							2362		Pkr	-	40 hrs
1.	6.065 x 2.500			565	5.3	110	2639	60	Pkr	-	1 hr
2.	6.065 x 2.500			560	16.0	97	2453	60	Pkr	-	1 hr
3.	6.065 x 2.500			590	27.5	87	2220	60	Pkr	-	1 hr
4.	6.065 x 2.500			660	36.0	81	2035	60	Pkr	-	1 hr
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, Mcfd
1	30.31	55.34	573.2	0.9551	1.260	1.033	2.096
2	30.31	95.76	573.2	0.9662	1.260	1.041	3.678
3	30.31	120.79	603.2	0.9750	1.260	1.048	5.026
4	30.31	143.56	613.2	0.9804	1.260	1.049	5.836
5.							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 74.135 Mcf/bbl.
1	0.95	570	1.57	0.923	A.P.I. Gravity of Liquid Hydrocarbons 54.0 Deg.
2	0.95	557	1.53	0.922	Specific Gravity Separator Gas 0.630 XXXXXXXXXX
3	0.95	567	1.50	0.911	Specific Gravity Flowing Fluid XXXXXX 0.670
4	0.92	541	1.49	0.903	Critical Pressure 673 P.S.I.A. 670 P.S.I.A.
5					Critical Temperature 364 °R 381 °R

NO.	P _i ²	P _w	R _w ²	P _e ² - R _w ²	(1) $\frac{P_e^2}{R_e^2 - R_w^2} = 2.661$ (2) $\left[\frac{R_e^2}{R_e^2 - R_w^2} \right]^n = 1.348$ AOF = Q $\left[\frac{R_e^2}{R_e^2 - R_w^2} \right]^n = 10,785$
1		3632.8	13,197	1,040	
2		3330.2	11,090	3,147	
3		3173.2	10,069	4,168	
4		2981.1	8,857	5,350	
5					

Absolute Open Flow 10,785 Mcfd @ 15.025		Angle of Slope @ 0.625	
Remarks: Q measured with bottom hole pressure recorder			
Approved By Commission:		Conducted By: Al Klear	
		Calculated By: Ed Snook	
		Checked By: Ed Snook	