

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

Form C-1
Revised

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-18-83	
Company THE SUPERIOR OIL COMPANY				Connection TRANSWESTERN			
Pool Wildcat				Formation MORROW		Unit	
Completion Date 7-12-82		Total Depth 16,335'		Plug Back TD 15499'		Elevation GL: 3369	
Casing Size 7 5/8" Liner		Wt. 42.7# 33.7#		Set At 12650 12290-1542		Perforations: From 15,082 To 15,236'	
Casing Size 2 7/8" Liner		Wt. 23.2# 6.5#		Set At 15225-16335 14,500		Perforations: From OPENENDED	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE						Packer Set At 14,500'	
Producing Thru TUBING		Reservoir Temp. °F 221° @ 15,159'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 15,159		H 15,159'		C _g .5746		% CO ₂ .721	
				% N ₂ .338		% H ₂ S	
				Prover		Meter Run 2"	
						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							4849#		PKR		24 H
1.	2.00"	x	1.125"	687#	9"	87°	3450	60°			1 H
2.	2.00"	x	1.125"	687	13"	94	2400	60			1 H
3.	2.00	x	1.125	687	10"	88	1675	60			1 H
4.	2.00	x	1.125	687	2"	97	687	60			45 M
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 _{sp}	Rate of Flow Q, Mc/d
1	6.393	79.38	700.2 #	.9750	1.319	1.042	680
2	6.393	95.41	700.2	.9688	1.139	1.042	812
3	6.393	83.68	700.2	.9741	1.139	1.042	716
4	6.393	37.42	700.2	.9662	1.139	1.042	318
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mc/d
1	1.036	547	1.576	.921	A.P.I. Gravity of Liquid Hydrocarbons		
2	1.036	554	1.596	.921	Specific Gravity Separator Gas	.5746	XXXXXXXXXX
3	1.036	548	1.579	.921	Specific Gravity Flowing Fluid	XXXXXX	
4	1.036	557	1.605	.921	Critical Pressure	676	P.S.I.A. P.S.
5					Critical Temperature	347	R

NO	P _i ²	P _w ²	P _r ²	P _c ² - P _w ²
1	11902.5	4957	24572.6	18789.6
2	5760.0	3710	13764.1	29598.1
3	2805.6	2967	8803.1	34559.1
4	472.0	2167	4695.9	38666.3
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.12$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 337$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.06$

Absolute Open Flow	337	Mc/d @ 15.025	Angle of Slope @	63.5°	Slope, n	.500
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Remarks: No reasonable alignment of points. A 63.5° Angle was drawn thru low rate and .500 was used as N Slope and for all calculations.

Approved By Commission:	Conducted By: W.S. & T.B.	Calculated By: JDW	Checked By: JDW.
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RECEIVED
JUL 29 1983
D.C.D.
HARRIS OFFICE