

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

RECEIVED BY
APR -8 1965
O.C.D.
ARTESIA, N.M.

Type ☒ Annual ☐ Special		Test Date 3/20/85	
Company SUN EXPLORATION & PROD. ✓		Connection TRANSWESTERN	
Pool KENNEDY FARMS <i>U/Penn</i>		Formation CISCO	
Completion Date 3/18/85		Total Depth 8881	
Casing Size 5.500		Set At 8881	
Well Size 2.375		Set At 7254	
Type Well - Single - Headhead - G.C. or G.O. Multiple		Packer Set At 7147	
Producing thru TUBING 7214		Reservoir Temp. °F 144 @ 7214	
Main Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
% CO ₂ 1.37		% N ₂ 1.73	
% H ₂ S 0		Prover 0	
Motor Run 4.0		Temp. FLANGE	

FLOW DATA							TUBING DATA		B.H.P. 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.	CHOKE	
51							1740		2261	✓	48.0
1.	4.03	X	0.750	120	8.0	42	1650	0	2190	6/64	1.0
2.	4.03	X	0.750	120	16.0	42	1600	0	2131	6.5/64	1.0
3.	4.03	X	0.750	120	32.0	42	1545	0	2062	7/64	1.0
4.	4.03	X	0.750	120	64.0	49	1470	0	1976	8/64	1.0
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 _{sp}	Rate of Flow Q, Mcfd
1	2.66	32.64	133.2	1.0178	1.1426	1.0192	103
2	2.66	46.16	133.2	1.0178	1.1426	1.0192	146
3	2.66	65.29	133.2	1.0178	1.1426	1.0192	206
4	2.66	92.33	133.2	1.0107	1.1426	1.0184	289
5							

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.
1	0.20	502	1.24	0.963	A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.
2	0.20	502	1.24	0.963	Specific Gravity Separator Gas 0.766
3	0.20	502	1.24	0.963	Specific Gravity Flowing Fluid 0.766
4	0.20	509	1.26	0.964	Critical Pressure 667 P.S.I.A.
5					Critical Temperature 403 °R

NO.	P ₁ ²	P _w ²	P ₂ ²	P ₂ ² - P _w ²
1	4854	1692	2863	182
2	4598	1648	2717	328
3	4306	1597	2551	494
4	3957	1534	2353	693
5				

(1) $\frac{P_c^2}{P_2^2 - P_w^2} = 4.3970$ (2) $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 3.1519$

LOG = Q $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 911$

Post FD-2
4-19-85
Camp. U/Penn

Absolute Open Flow 911 Mcfd @ 15.025	Angle of Slope 52.2	Slope, n 0.775
Remarks		
Approved by Commission	Conducted By: RICKY HATCHETT	Calculated By: BENNETT & CATHEY
Checked By:		

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APR -5 1985

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HOBBS OFFICE