

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

Form C-122
 Revised 9-1-63

RECEIVED

Type Test 4POINT ☒ Initial ☐ Annual ☐ Special		Test Date 2/10/87		JUN 10 '88	
Company MCKAY OIL CORP.		Connection TO AIR		O. C. D.	
Pool W. PECOS ABO		Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 2/7/87		Total Depth 3400		Plug Back To 3151	
Elevation 4111		Farm or Lease Name HOSMER FED.		Well No. 3	
Casing Size 4.5		Casing Wt. 9.5		Perforations: From 2815 To 2918.5	
Tubing Size 2.375		Tubing Wt. 4.7		Perforations: From OPEN To ENDED	
Type Well - Single - Bradenhead - G.O. or G.O. Multiple SINGLE		Packoff Set At NONE		County CHAVES	
Producing thru TUBING		Reservoir Temp. °F 98 @ 2867		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State NEW MEXICO			
L 2867		H 2867		G _g 0.639	
% CO ₂ 0.216		% N ₂ 4.893		% H ₂ S 0	
Prover 2.000		Motor Run 0		Taps 0	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. w.	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
51							785	58	785	58	72HRS
1.	2.000	.125	759	0.00	58	759	58	756	58	60MIN	
2.	2.000	.1875	709	0.00	55	709	55	709	55	60MIN	
3.	2.000	.21875	664	0.00	54	664	54	665	54	60MIN	
4.	2.000	.250	609	0.00	52	609	52	614	52	60MIN	
5.	2.000	.3125	516	0.00	51	516	51	526	51	60MIN	

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	0.2648	0.00	772.2	1.002	1.251	1.073	274
2	0.6082	0.00	722.2	1.005	1.251	1.068	590
3	0.8393	0.00	677.2	1.006	1.251	1.063	760
4	1.0870	0.00	622.2	1.008	1.251	1.060	904
5	1.6720	0.00	529.2	1.009	1.251	1.051	1174

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	1.17	518	1.44	.868	0	0	0.639	XXXXXX	661	358
2	1.09	515	1.44	.877				XXXXX		
3	1.02	514	1.44	.885						
4	0.94	512	1.43	.890						
5	0.80	511	1.43	.906						

NO.	P ₁ ²	P _w ²	P _c ²	P _c ² - P _w ²
1	798.2	592	45	
2	722.2	522	115	
3	678.2	460	177	
4	627.2	393	244	
5	539.2	291	346	

(1) $\frac{P_c^2}{P_1^2 - P_w^2} = \frac{1.8410}{1.5396}$

(2) $\left[\frac{P_c^2}{P_1^2 - P_w^2} \right]^n = 1.5396$

AOI = Q $\left[\frac{h^2}{P_1^2 - P_w^2} \right]^n = 1807.4$

Absolute Open Flow	1807	Mcfd @ 15.025	Angle of Slope @	54.75	Slope, n	0.707
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Remarks:	
Approved By Commission:	Conducted By:
Calculated By:	Checked By: