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MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9/9/87		DEC 20 '88	
Company McKay Oil Corporation				Connection Air		O. C. D.	
Pool West Pecos Slope <i>Alb</i>				Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 9-9-87		Total Depth 4208'		Plug Back TD 4102'		Elevation 4211' GL	
Casing Size 4-1/2"		Wt. 10.5#		Set At 4173'		Perforations: From 3160' To 3168'	
Tubing Size 2-3/8"		Wt. 4.7#		Set At 3128'		Perforations: From -- To --	
Type Well - Single - Drillinghead - G.C. or G.O. Multiple Single				Packer Set At --		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 90 @ 3164		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 3164		H 3164		G _g 0.584		% CO ₂ 0.00	
				% N ₂ 5.607		% H ₂ S 0.00	
				Prover 2.00		Meter Run --	
						Taps --	

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							1070		1074		SI 72 HR
1.	2.000	.250	154	--	76	1022	76	1027	76	60 MI	
2.	2.000	.375	146	--	67	953	67	960	67	60 MI	
3.	2.000	.500	125	--	48	840	48	846	48	60 MI	
4.	2.000	.625	94	--	56	631	56	704	56	60 MI	
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	1.087	--	167.2	.9850	1.309	1.010	237
2	2.378	--	159.2	.9933	1.309	1.011	498
3	4.279	--	138.2	1.0117	1.309	1.011	792
4	6.473	--	107.2	1.0039	1.309	1.008	919
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.25	536	1.60	0.980	0	
2	0.24	527	1.57	0.979	0	
3	0.21	508	1.52	0.979	0.584	XXXXXXX
4	0.16	516	1.54	0.985	XXXXX	
5						

P _c 1087.2 P _r 1182.0				A.P.I. Gravity of Liquid Hydrocarbons		0		Deg.	
				Specific Gravity Separator Gas		0.584		XXXXXXX	
				Specific Gravity Flowing Fluid		XXXXX			
				Critical Pressure		662		P.S.I.A.	
				Critical Temperature		335		R	

NO.	P ₁	P _w	P ₂	P ₂ - P _w	(1) $\frac{P_c^2}{P_2^2 - P_w^2} = 11.82$	(2) $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 6.72$
1		1040.2	1082.0	100.0		
2		973.2	947.1	234.9		
3		859.2	738.2	443.8		
4		717.2	514.4	667.6		
5						

Absolute Open Flow 1,593 Mcfd @ 15.025				Angle of Slope @ 52.35		Slope, n 0.7714	
Remarks: No water produced during test.							

Approved by Division	Conducted By: D. Kelton	Calculated By: C. Sanders	Checked By: P. Stewart
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