

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

JAN 12 '89

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12/13/88			
Company MCKAY OIL CORPORATION				Connection Air		O. C. D. ARTESIA, OFFICE	
Pool West North Pecos Slope Abo				Formation Abo Sand		Unit West Fork Unit	
Completion Date 12-13-88		Total Depth 4584'		Plug Back TD 3260'		Elevation 4450 KB	
Csg. Size 4-1/2"		WT. 10.5		Set At 4.052		Perforations: From 3041 To 3090	
Tbg. Size 2-3/8"		WT. 4.7		Set At 1.995		Perforations: From -- To --	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 90 @ 3065		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 3065		H 3065		G _g 0.620		% CO ₂ 0.00	
				% N ₂ 5.105		% H ₂ S 0.00	
				Prover 2.000		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							1170		1190		SI 72 HRS.
1.	2.00		0.375	123	--	50	1140	60	1144	60	SI 60 Min.
2.	2.00		0.500	152	--	48	1102	60	1109	60	SI 60 Min.
3.	2.00		0.625	153	--	45	1039	60	1051	60	SI 60 Min.
4.	2.00		0.875	141	--	45	824	60	876	60	SI 60 Min.
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 _{cv}	Rate of Flow Q, Mcfd
1	2.378	--	136.2	1.0098	1.2700	1.012	420
2	4.279	--	165.2	1.0117	1.2700	1.015	922
3	6.473	--	166.2	1.0147	1.2700	1.015	1407
4	13.000	--	154.2	1.0147	1.2700	1.014	2619
5							

NO.	P _t	Temp. °R	T _f	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	0.20	510	1.43	0.976						
2	0.24	508	1.43	0.971						
3	0.24	505	1.42	0.971						
4	0.22	505	1.42	0.973						
5										

P_c 1203.2 P_c^2 1447.7					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2.204}{}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.942}{}$
NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$		
1		1157.2	1339.1	108.6		
2		1122.2	1259.3	188.4		
3		1064.2	1132.5	315.2		
4		889.2	790.7	657.0		
5						

$AO\Gamma = Q$ $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{5087}{}$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5087$$

Absolute Open Flow 5087 Mcfd @ 15.025		Angle of Slope @ 49.97		Slope, n 0.84	
Remarks: No fluid produced. Choke sizes: 13/64, 17/64, 20/64, 26/64					
Approved by Division		Conducted By: Dale Kelton		Calculated By: Charles Sanders	
				Checked By: Patti Stewart	

12/13/88

