

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-May-1992			
Company Marathon Oil Company				Connection					
Pool <i>Osido Lea wolfcamp</i>				Formation Wolfcamp				Unit	
Completion Date 2/10/92		Total Depth 13380		Ply Back TD 11617		Elevation 3360 GL		Farm or Lease Name Jordan "B"	
Coq. Size 4.5"	Wt. 13.5	d 3.920	Set At 13830	Perforations: From 11468 To 11478		Well No. 1			
Thq. Size 2.375"	Wt. 4.7	d 1.995	Set At 11442	Perforations: From 11442 To 11460		Unit Sec. Twp. Rge. <i>0</i> 11 - 20S - 35E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10805		County Lea	
Producing Thru		Reservoir Temp. °F 153 @ 11445		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State New Mexico	
L 11455	H 11455	Gg 0.710	% CO ₂ 1.12	% N ₂ 0.42	% H ₂ S 0	Prover		Meter Run 4.026	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							2299	84			110.0
1.	4.026 x 3.000			56	13.0	70	1917	70			1.0
2.	4.026 x 3.000			61	25.2	61	1810	61			1.0
3.	4.026 x 3.000			73	32.5	45	1679	45			1.0
4.	4.026 x 3.000			82	82.6	43	1545	43			1.0
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 _{pv}	Rate of Flow Q, Mcfd
1	51.64	30.04	69.4	0.9905	1.1868	1.0074	1837
2	51.64	43.30	74.4	0.9992	1.1868	1.0084	2674
3	51.64	53.02	86.5	1.0147	1.1868	1.0108	3333
4	51.64	88.86	95.6	1.0167	1.1868	1.0121	5604
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 9.9 Mcf/bbl.
1	0.10	530	1.36	0.985	A.P.I. Gravity of Liquid Hydrocarbons 55.1 Deg.
2	0.11	521	1.34	0.983	Specific Gravity Separator Gas 0.710 XXXXXXXXX
3	0.13	505	1.30	0.979	Specific Gravity Flowing Fluid XXXXX 0.954
4	0.14	503	1.29	0.976	Critical Pressure 671 P.S.I.A. 659 P.S.I.A.
5.					Critical Temperature 390 R 466 R

P _c 2254.6 P _c ² 5083					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.9560$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.9560$	
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 9108$			
1	3726	1931	3729	1354				
2	3324	1876	3520	1563				
3	2864	1819	3308	1776				
4	2428	3364	3364	1720				
5								

Absolute Open Flow 9108 Mcfd @ 15.025		Angle of Slope θ 45.0		Slope, n 1.0	
Remarks:					
Approved By Division		Conducted By: <i>Rebecca Smith, G. 2/10/92</i>		Calculated By: <i>[Signature]</i>	
				Checked By:	