

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 1-23-70																																																	
Company CAYMAN CORPORATION				Connection PHILLIPS PETROLEUM																																																		
Pool RANGER LAKE DEVONIAN				Formation DEVONIAN		Unit D																																																
Completion Date 12-23-69		Total Depth 12,880		Plug Back TD 12,872		Elevation 4154 G.L.																																																
Csg. Size 4 1/2"		Wt. 13.5	d 3.920	Set At 12,880	Perforations: From 12,833 To 12,846																																																	
Tbg. Size 2-3/8"		Wt. 4.70	d 1.995	Set At 12,762	Perforations: From 12,849 To 12,869																																																	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE					Packer Set At 12,421																																																	
Producing Thru TUBING		Reservoir Temp. °F 200 @ 12,600'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2																																																
L 12762	H 12762	Gg 0.7050	% CO ₂ 2.17%	% N ₂ 3.45%	% H ₂ S 0.06%	Prover 4.000																																																
Meter Run 4.000						FLANGE																																																
FLOW DATA				TUBING DATA		CASING DATA																																																
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F																																																
SI	74 hrs.																																																					
1.	4.000 x 2.000			6.45	1.00	88																																																
2.	DITTO			6.55	1.80	81																																																
3.	"			6.65	2.80	66																																																
4.	"			6.75	3.36	62																																																
5.																																																						
*L-10 CHART RATE OF FLOW CALCULATIONS <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>Coefficient (24 Hour)</th> <th>$\sqrt{h_w P_m}$</th> <th>Pressure P_m</th> <th>Flow Temp. Factor Ft.</th> <th>Gravity Factor Fg</th> <th>Super Compress. Factor, Fpv</th> <th>Rate of Flow Q, Mcfd</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>62.639</td> <td></td> <td>428.2</td> <td>.9741</td> <td>1.191</td> <td>1.051</td> <td>493</td> </tr> <tr> <td>2</td> <td>DITTO</td> <td></td> <td>442.2</td> <td>.9804</td> <td>1.191</td> <td>1.044</td> <td>900</td> </tr> <tr> <td>3</td> <td>"</td> <td></td> <td>455.2</td> <td>.9943</td> <td>1.191</td> <td>1.051</td> <td>1452</td> </tr> <tr> <td>4</td> <td>"</td> <td></td> <td>468.8</td> <td>.9981</td> <td>1.191</td> <td>1.048</td> <td>1770</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							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	62.639		428.2	.9741	1.191	1.051	493	2	DITTO		442.2	.9804	1.191	1.044	900	3	"		455.2	.9943	1.191	1.051	1452	4	"		468.8	.9981	1.191	1.048	1770	5							
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NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 8.01 Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons 60.0 Deg. Specific Gravity Separator Gas 0.705 X X X X X X X X Specific Gravity Flowing Fluid X X X X X Critical Pressure _____ P.S.I.A. _____ P.S.I.A. Critical Temperature 671 R _____ R																																																	
1	0.64	548	1.43	.923																																																		
2	0.66	541	1.41	.918																																																		
3	0.68	526	1.37	.906																																																		
4	0.70	522	1.36	.911																																																		
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P _c 4362.2 P _c ² 19028.8 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>P_t²</th> <th>P_w</th> <th>P_w²</th> <th>P_c² - P_w²</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>4359.2</td> <td>19002.6</td> <td>26.2</td> </tr> <tr> <td>2</td> <td></td> <td>4355.2</td> <td>18967.8</td> <td>61.0</td> </tr> <tr> <td>3</td> <td></td> <td>4350.2</td> <td>18924.2</td> <td>104.6</td> </tr> <tr> <td>4</td> <td></td> <td>4346.2</td> <td>1889.5</td> <td>139.3</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	1		4359.2	19002.6	26.2	2		4355.2	18967.8	61.0	3		4350.2	18924.2	104.6	4		4346.2	1889.5	139.3	5					(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ _____ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____																			
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Absolute Oper. Flow 78,000 Mcfd @ 15.025					Angle of Slope θ 52.5																																																	
					Slope, n 0.767																																																	
Remarks: USED AMERADA BHP INSTRUMENT TO GET VALUES OF P_c & P_w.																																																						
Approved By Commission:		Conducted By:		Calculated By:		Checked By:																																																
<i>[Signature]</i>		<i>[Signature]</i>		HARRY E. LEGENDRE																																																		
APEX ENGINEERING CO.																																																						