

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 04-01-77																																																																																																
Company Merrion & Bayless				Connection																																																																																																
Pool N.I.I.P.				Formation Picture Cliff																																																																																																
Completion Date 03-17-77		Total Depth 1300'		Plug Back TD 1257'																																																																																																
				Elevation 6004'																																																																																																
Farm or Lease Name Chaco																																																																																																				
Csg. Size 2-7/8"	Wt. 6.5#/ft.	d 2.441	Set At 1278'	Perforations: From 1196' To 1204'																																																																																																
Thq. Size 1-1/4"	Wt. 2.4#/ft.	d 1.380	Set At 1187'	Perforations: From To																																																																																																
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 1185'																																																																																																
Producing Thru Tubing		Reservoir Temp. °F 77.8° 1187'		Mean Annual Temp. °F 60°																																																																																																
				Baro. Press. - P _a																																																																																																
L 1187		H 1187	Gg 0.65	% CO ₂	% N ₂																																																																																															
				% H ₂ S	Prover 2"																																																																																															
					Meter Run																																																																																															
					Taps																																																																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="6">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">CASING DATA</th> <th>Duration of Flow</th> </tr> <tr> <th>NO.</th> <th>Prover Line Size</th> <th>X</th> <th>Orifice Size</th> <th>Press. p.s.i.g.</th> <th>Diff. h_w</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th></th> </tr> <tr> <td>SI</td> <td>8 Day</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>231</td> <td>60°</td> <td></td> </tr> <tr> <td>1.</td> <td>2"</td> <td></td> <td>3/8"</td> <td>25</td> <td></td> <td></td> <td></td> <td></td> <td>25</td> <td>60°</td> <td>0.50 Hrs.</td> </tr> <tr><td>2.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>						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	8 Day								231	60°		1.	2"		3/8"	25					25	60°	0.50 Hrs.	2.												3.												4.												5.											
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	8 Day								231	60°																																																																																										
1.	2"		3/8"	25					25	60°	0.50 Hrs.																																																																																									
2.																																																																																																				
3.																																																																																																				
4.																																																																																																				
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 _{sp}	Rate of Flow Q, Mcfd																																																																																													
1	2.378		37.2	1.000	1.240	1.004	110																																																																																													
2.																																																																																																				
3.																																																																																																				
4.																																																																																																				
5.																																																																																																				
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas _____ 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 _____ R _____ R																																																																																															
1.																																																																																																				
2.																																																																																																				
3.																																																																																																				
4.																																																																																																				
5.																																																																																																				
P _c 243.2 P _c ² 59146 <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>P_r²</th> <th>P_w</th> <th>P_w²</th> <th>P_c² - P_w²</th> </tr> <tr> <td>1</td> <td>1,384</td> <td>42.4</td> <td>1,796</td> <td>57,350</td> </tr> <tr><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td></tr> </table>					NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²	1	1,384	42.4	1,796	57,350	2					3					4					5					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{59,146}{57,350} = 1.031 \left[\frac{P_r^2}{P_c^2 - P_w^2} \right]^n = 1.027$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 113 \text{ MCF/day}$																																																																	
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²																																																																																																
1	1,384	42.4	1,796	57,350																																																																																																
2																																																																																																				
3																																																																																																				
4																																																																																																				
5																																																																																																				
Absolute Open Flow					113 Mcfd @ 15.025		Angle of Slope θ		Slope, n 0.85																																																																																											
Remarks:																																																																																																				
Approved By Commission:				Conducted By: Steven S. Dunn		Calculated By: Steven S. Dunn			Checked By: Robert L. Bayless																																																																																											