

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

Form C-122
Revised 9-63

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-30-71		JAN 7 1972																																																																																																
Company Yates Petroleum Corp.				Connection NONE		G. C. C.																																																																																																
Pool Woodstock Eagle Creek Artesia Undesignated				Formation Alaska Morrow Gas		ARTESIA, OFFICE																																																																																																
Completion Date 12-30-71		Total Depth 8099'		Plug Back TD 8064'		Elevation 3524' KB																																																																																																
Csg. Size 4 1/2"		Wt. 10.5		Set At 8090'		Perforations: From 7860' To 7877'																																																																																																
Tbg. Size 2 3/8"		Wt. 4.7		Set At 7783'		Perforations: From Open To Ended																																																																																																
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 7783'		Farm or Lease Name Artesia Airport CE																																																																																																
Producing Thru Tubing		Reservoir Temp. °F 140 @ 7840'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2																																																																																																
L 7869'		H -		G _g 0.639		% CO ₂ 0.28																																																																																																
				% N ₂ 0.13		% H ₂ S 0.0																																																																																																
				Prover X		Meter Run Flange																																																																																																
<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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2413</td> <td></td> <td></td> <td></td> <td>41.0 hrs</td> </tr> <tr> <td>1.</td> <td>3</td> <td>18/64</td> <td>1.500</td> <td>900</td> <td>31</td> <td>76</td> <td>1680</td> <td>48</td> <td>-</td> <td>-</td> <td>1.5</td> </tr> <tr> <td>2.</td> <td>3</td> <td>17/64</td> <td>1.500</td> <td>900</td> <td>27</td> <td>80</td> <td>1743</td> <td>50</td> <td>-</td> <td>-</td> <td>1.0</td> </tr> <tr> <td>3.</td> <td>3</td> <td>16/64</td> <td>1.500</td> <td>900</td> <td>23</td> <td>80</td> <td>1807</td> <td>46</td> <td>-</td> <td>-</td> <td>1.0</td> </tr> <tr> <td>4.</td> <td>3</td> <td>14/64</td> <td>1.500</td> <td>900</td> <td>15</td> <td>80</td> <td>1942</td> <td>38</td> <td>-</td> <td>-</td> <td>1.0</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							2413				41.0 hrs	1.	3	18/64	1.500	900	31	76	1680	48	-	-	1.5	2.	3	17/64	1.500	900	27	80	1743	50	-	-	1.0	3.	3	16/64	1.500	900	23	80	1807	46	-	-	1.0	4.	3	14/64	1.500	900	15	80	1942	38	-	-	1.0	5.											
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1.	3	18/64	1.500	900	31	76	1680	48	-	-	1.5																																																																																											
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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	11.13	168.26	913.2	0.9850	1.251	1.078	2487.6																																																																																															
2	11.13	157.02	913.2	0.9813	1.251	1.076	2308.6																																																																																															
3	11.13	144.94	913.2	0.9813	1.251	1.076	2130.8																																																																																															
4	11.13	117.04	913.2	0.9813	1.251	1.076	1720.7																																																																																															
5																																																																																																						
NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 122.418 Mcf/bbl.																																																																																																	
1	1.36	536	1.47	0.861	A.P.I. Gravity of Liquid Hydrocarbons 57.8 Deg.																																																																																																	
2	1.36	540	1.48	0.864	Specific Gravity Separator Gas 0.639 XXXXXXXXXX																																																																																																	
3	1.36	540	1.48	0.864	Specific Gravity Flowing Fluid XXXXX																																																																																																	
4	1.36	540	1.48	0.864	Critical Pressure 673 P.S.I.A. - P.S.I.A.																																																																																																	
5					Critical Temperature 364 R - R																																																																																																	
P _c 3045.2 P _c ² 9273.2					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.161$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.061$																																																																																																	
NO.	P _t ²	P _w *	P _w ²	P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5127$																																																																																																	
1	-	2232.2	4982.7	4290.5																																																																																																		
2	-	2292.2	5254.2	4019.0																																																																																																		
3	-	2364.2	5589.4	3683.8																																																																																																		
4	-	2504.2	6271.0	3002.2																																																																																																		
5																																																																																																						
Absolute Open Flow 5125 Mcfd @ 15.025					Angle of Slope @ 46° 50'		Slope, n 0.939																																																																																															
Remarks: * BHP @ (-4345') 7869' used for pressure calculations																																																																																																						
Approved By Commission:		Conducted By: COLEMAN PET.ENG.		Calculated By: JOE A. COLEMAN		Checked By: JOE A. COLEMAN																																																																																																