

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-9-81		JUN 19 1981																																																																																						
Company Cities Service Company				To Air		O. C. D.																																																																																						
Pool 71 Securing Horizon				Morrow		Unit ARTESIA, C.D.																																																																																						
Completion Date 6-5-81		Test Point 12540		Elevation 12501		Farm or Lease Name 3013 GRD Swearingen "A"																																																																																						
Csg. Size 5 1/8" 26.4# 6.969		Set At 9700		Perforations 9297 12538" 12,161 To 12,419		Well No.																																																																																						
Tub. Size 2 7/8" 6.5# 2.441"		Set At 12,035		Perforations Open To Ended		Unit Sec. Twp. Rge. J 5 23 S 28 E																																																																																						
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12,027		County Eddy																																																																																						
Producing Thru Tubing		Reservoir Temp. °F 198 12,290		Mean Annual Temp. °F 60		State N. Mex.																																																																																						
L 12,290		H 12,290		Gg .5849		Prover 3"																																																																																						
				% CO ₂ 1.209		Meter Run E1g																																																																																						
				% N ₂ .582																																																																																								
				% H ₂ S -000-																																																																																								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">CASING DATA</th> <th rowspan="2">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>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> </tr> <tr> <td>SI</td> <td>S.I.</td> <td></td> <td></td> <td></td> <td></td> <td>3920</td> <td></td> <td>PKR</td> <td>choko</td> <td>72 Hr.</td> </tr> <tr> <td>1.</td> <td>3</td> <td>X</td> <td>1.5"</td> <td>500</td> <td>77</td> <td>3680</td> <td>77</td> <td></td> <td>6/64</td> <td>1 Hr.</td> </tr> <tr> <td>2.</td> <td>3</td> <td>X</td> <td>1.5"</td> <td>500</td> <td>71</td> <td>3365</td> <td>75</td> <td></td> <td>8/64</td> <td>1 Hr.</td> </tr> <tr> <td>3.</td> <td>3</td> <td>X</td> <td>1.5"</td> <td>520</td> <td>73</td> <td>3015</td> <td>79</td> <td></td> <td>10/64</td> <td>1 Hr.</td> </tr> <tr> <td>4.</td> <td>3</td> <td>X</td> <td>1.5"</td> <td>520</td> <td>65</td> <td>2690</td> <td>78</td> <td></td> <td>12/64</td> <td>1 Hr.</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> </tr> </table>								FLOW DATA				TUBING DATA		CASING DATA		Duration of Flow	NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	SI	S.I.					3920		PKR	choko	72 Hr.	1.	3	X	1.5"	500	77	3680	77		6/64	1 Hr.	2.	3	X	1.5"	500	71	3365	75		8/64	1 Hr.	3.	3	X	1.5"	520	73	3015	79		10/64	1 Hr.	4.	3	X	1.5"	520	65	2690	78		12/64	1 Hr.	5.										
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5.																																																																																												
RATE OF FLOW CALCULATIONS																																																																																												
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure (p.s.i.g.)	Flow Temp. Factor (°F)	Gravity Factor (Fg)	Super Compress. Factor (Fpv)	Rate of Flow Q, Mcfd																																																																																					
1.	11.13	59.94	513.2	.9750	1.307	1.033	892																																																																																					
2.	11.13	106.26	513.2	.9905	1.307	1.038	1589																																																																																					
3.	11.13	144.26	533.2	.9877	1.307	1.038	2151																																																																																					
4.	11.13	175.86	533.2	.9952	1.307	1.042	2653																																																																																					
5.																																																																																												
NO.	P _i	Temp. °F	T _i	Z	Gas-Liquid Hydrocarbon Ratio	Mcf/lbl.																																																																																						
1.	.759	547	1.58	.938	303.5																																																																																							
2.	.759	531	1.53	.929	43.8 @ 60	Deg.																																																																																						
3.	.789	533	1.54	.928	Specific Gravity Separator Gas	XXXXXXX																																																																																						
4.	.789	525	1.51	.921	Specific Gravity Flowing Field	.5958																																																																																						
5.					Pressure	676 P.S.I.A.	671 P.S.I.A.																																																																																					
					Temperature	347 R	359 R																																																																																					
$P_c = 3989 P_c^2 = 15,912$ $\frac{P_c^2}{P_c^2 - P_w^2} = 1.86892$ $\left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n = 1.684$																																																																																												
NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²																																																																																								
1		3695.1	13,654	2253																																																																																								
2		3381.7	11,436	4476																																																																																								
3		3032	9,193	6719																																																																																								
4		2720	7,398	8514																																																																																								
5																																																																																												
Absolute Open Flow				4.468	Angle of Slope	50° 11'	Slope, n																																																																																					
Remarks				* Calculated from known Bottom Hole pressure made 1 Bbl. condensate during test.																																																																																								
Approved By Commission:		Consented By:		Calculated By:		Checked By:																																																																																						
		M.K.		M.K.		M.K.																																																																																						