

NE. MEXICO OIL 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 7-16-76		JUL 23 1976																																																																																																		
Company David Fasken						Connection NGPL																																																																																																				
Pool <i>Cemetery morrow</i> Indian Basin						Formation Morrow																																																																																																				
Completion Date 7-14-76			Total Depth 9900			Plug Back TD 9733 9740			Elevation 3693.5 KB																																																																																																	
Csg. Size 4 1/2			Wt. 11.60			Set At 9798			Perforations: From 9422 To 9432																																																																																																	
Thg. Size 2 3/8			Wt. 4.7			Set At 9273			Perforations: From To																																																																																																	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9272.98			Farm or Lease Name Howell State Comm																																																																																																	
Producing Thru Tubing			Reservoir Temp. °F 175 @ 9377			Mean Annual Temp. °F 70			Baro. Press. - P _a 13.2																																																																																																	
L 9427			H 9427			Gg 0.6000			% CO ₂																																																																																																	
						% N ₂			% H ₂ S																																																																																																	
									Prover Pos. ck.																																																																																																	
									Meter Run																																																																																																	
									Taps																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="7">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>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> </tr> <tr> <td>SI</td> <td></td> <td></td> <td></td> <td>2323</td> <td></td> <td></td> <td>2323</td> <td></td> <td>Pkr</td> <td></td> <td></td> </tr> <tr> <td>1.</td> <td>2"</td> <td>X</td> <td>8/64"</td> <td>2298</td> <td></td> <td>70</td> <td>2298</td> <td>70</td> <td></td> <td></td> <td>45 min.</td> </tr> <tr> <td>2.</td> <td>2"</td> <td>X</td> <td>10/64"</td> <td>2262</td> <td></td> <td>70</td> <td>2262</td> <td>70</td> <td></td> <td></td> <td>45 min.</td> </tr> <tr> <td>3.</td> <td>2"</td> <td>X</td> <td>13/64"</td> <td>2171</td> <td></td> <td>71</td> <td>2171</td> <td>71</td> <td></td> <td></td> <td>60 min.</td> </tr> <tr> <td>4.</td> <td>2"</td> <td>X</td> <td>16/64"</td> <td>2078</td> <td></td> <td>72</td> <td>2078</td> <td>72</td> <td></td> <td></td> <td>45 min.</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				2323			2323		Pkr			1.	2"	X	8/64"	2298		70	2298	70			45 min.	2.	2"	X	10/64"	2262		70	2262	70			45 min.	3.	2"	X	13/64"	2171		71	2171	71			60 min.	4.	2"	X	16/64"	2078		72	2078	72			45 min.	5.											
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SI				2323			2323		Pkr																																																																																																	
1.	2"	X	8/64"	2298		70	2298	70			45 min.																																																																																															
2.	2"	X	10/64"	2262		70	2262	70			45 min.																																																																																															
3.	2"	X	13/64"	2171		71	2171	71			60 min.																																																																																															
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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 _{pv}	Rate of Flow Q, Mcfd																																																																																																			
1	0.2618		2311.2	0.9905	1.291	1.149	889.0																																																																																																			
2	0.4173		2275.2	0.9905	1.291	1.149	1395.0																																																																																																			
3	0.7208		2184.2	0.9896	1.291	1.147	2322.0																																																																																																			
4	1.1120		2091.2	0.9887	1.291	1.141	3386.7																																																																																																			
5																																																																																																										
NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>Dry Gas</u> Mcf/bbl.																																																																																																					
1	3.44	530	1.48	0.758	A.P.I. Gravity of Liquid Hydrocarbons _____ Deq.																																																																																																					
2	3.39	530	1.48	0.758	Specific Gravity Separator Gas _____ X X X X X X X X																																																																																																					
3	3.26	531	1.48	0.760	Specific Gravity Flowing Fluid _____ X X X X X																																																																																																					
4	3.12	532	1.49	0.768	Critical Pressure _____ P.S.I.A. 671 P.S.I.A.																																																																																																					
5					Critical Temperature _____ R 358 R																																																																																																					
$P_f = 2944.2$ $P_f^2 = 8668$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 6.2449567$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.281606$																																																																																																					
NO.	P _f	P _s	P _s	P _f ² -P _s ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 14501$																																																																																																					
1		2906.2	8446	222																																																																																																						
2		2867.2	8221	447																																																																																																						
3		2785.2	7757	911																																																																																																						
4		2698.2	7280	1338																																																																																																						
Absolute Open Flow <u>14,501</u> Mcfd @ 15.025					Angle of Slope @ <u>51° 33'</u> Slope, n <u>0.793945</u>																																																																																																					
Remarks: <u>BHP measured with Amerada RPG-3 gauge Serial No. 32030 0-4000 psi</u>																																																																																																										
Approved By Commission:		Conducted By: Tefteller, Inc.		Calculated By: F. Tefteller		Checked By:																																																																																																				