

NEW 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 <u>6-5-79</u> <u>Four Point</u>		JUL 13 1979	
Company <u>Phoenix Resources</u>				Connection <u>Northern Natural Gas</u>			O. C. C.	
Pool <u>Wildcat Gardner Draw No. 1</u>				Formation <u>Morrow</u>			Unit <u>ARTESIA, OFFICE</u>	
Completion Date <u>11-30-78</u>		Total Depth <u>7450</u>		Plug Back TD <u>7408</u>		Elevation <u>4459 GR</u>		Farm or Lease Name <u>Gardner Draw Unit</u>
Csg. Size <u>4 1/2</u>	Wt. <u>11.60</u>	d <u>4.000</u>	Set At <u>7447</u>	Perforations: From <u>7108</u> To <u>7126</u>		Well No. <u>3</u>		
Tbg. Size <u>2 3/8</u>	Wt. <u>4.70</u>	d <u>1.995</u>	Set At <u>6867</u>	Perforations: From To		Unit Sec. Twp. Rge. <u>17</u> <u>19</u> <u>21</u>		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <u>Single</u>					Packer Set At <u>6867</u>		County <u>Eddy</u>	
Producing Thru <u>Tubing</u>		Reservoir Temp. °F <u>109 @ 7117</u>		Mean Annual Temp. °F		Baro. Press. - P _a <u>13.2</u>		State <u>New Mexico</u>
L <u>7117</u>	H <u>7117</u>	G _g <u>0.645</u>	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run <u>4"</u>	Tag <u>Pipe</u>

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											
1.	<u>4" x 1.75"</u>			<u>565</u>	<u>2.5</u>	<u>108</u>	<u>1745</u>	<u>74</u>			<u>1hr.</u>
2.	<u>4" x 1.75"</u>			<u>566</u>	<u>1.5</u>	<u>99</u>	<u>1598</u>	<u>74</u>			<u>1hr.</u>
3.	<u>4" x 1.75"</u>			<u>575</u>	<u>10</u>	<u>96</u>	<u>1222</u>	<u>75</u>			<u>1hr.</u>
4.	<u>4" x 1.75"</u>			<u>580</u>	<u>15</u>	<u>91</u>	<u>840</u>	<u>75</u>			<u>1hr.</u>
5.											

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	<u>16.80</u>	<u>38.02</u>		<u>0.9568</u>	<u>1.245</u>	<u>1.042</u>	<u>793</u>
2	<u>16.80</u>	<u>29.22</u>		<u>0.9645</u>	<u>1.245</u>	<u>1.045</u>	<u>616</u>
3	<u>16.80</u>	<u>76.69</u>		<u>0.9671</u>	<u>1.245</u>	<u>1.048</u>	<u>1626</u>
4	<u>16.80</u>	<u>94.33</u>		<u>0.9715</u>	<u>1.245</u>	<u>1.050</u>	<u>2013</u>
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	<u>0.84</u>	<u>568</u>	<u>1.51</u>	<u>0.921</u>		
2.	<u>0.84</u>	<u>559</u>	<u>1.49</u>	<u>0.915</u>		
3.	<u>0.86</u>	<u>556</u>	<u>1.48</u>	<u>0.911</u>		
4.	<u>0.87</u>	<u>551</u>	<u>1.47</u>	<u>0.907</u>		
5.						

NO.	P _r	P _w	P _w ²	P _c ² - P _w ²
1	<u>2091.3</u>	<u>1761.7</u>	<u>3103.7</u>	<u>664.6</u>
2	<u>2591.0</u>	<u>1613.6</u>	<u>2603.6</u>	<u>1164.7</u>
3	<u>1525.7</u>	<u>1257.5</u>	<u>1581.4</u>	<u>2186.9</u>
4	<u>728.0</u>	<u>905.2</u>	<u>819.5</u>	<u>2948.8</u>
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ _____

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ 2411

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____

Absolute Open Flow	<u>2411</u>	Mcf @ 15.025	Angle of Slope @ <u>53.7</u>	Slope, n <u>0.735</u>
Remarks:				
Approved By Commission:	Conducted By: <u>Rodney Barnes</u>	Calculated By: <u>Carson Watt</u>	Checked By:	