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State of New Mexico
Energy, Minerals and Natural Resources Department

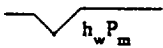
Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

AUG 05 1996

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <i>Arco Permain</i>					Lease or Unit Name <i>DOROTHY</i>					
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date <i>7-30-96</i>					
Completion Date <i>4/2/96</i>		Total Depth <i>11070</i>		Plug Back TD <i>10988</i>		Elevation <i>3674 GR</i>		Well No. <i>1</i>		
Csg. Size <i>5 1/2</i>	Wt. <i>17'</i>	d <i>4.892</i>	Set At <i>11045</i>	Perforations: From: <i>10780</i> To: <i>10787</i>				County <i>Eddy</i>		
Tbg. Size <i>2 3/8</i>	Wt. <i>4.7</i>	d <i>1.995</i>	Set At <i>9561</i>	Perforations: From: To:				Pool <i>Empire South Morrow</i>		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <i>Single</i>				Packer Set At <i>9566</i>				Formation <i>Morrow</i>		
Producing Thru <i>Tbg</i>		Reservoir Temp. °F <i>155</i>		Mean Annual Temp. °F <i>60</i>		Baro. Press - P <i>13.2</i>		Connection <i>Sales</i>		
L <i>9561</i>	H <i>9561</i>	Gg <i>.649</i>	% CO ₂ <i>.394</i>	% N ₂ <i>.485</i>	% H ₂ S <i>0</i>	Prover <i>0</i>	Meter Run <i>4.026</i>	Taps <i>F/9</i>		
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						<i>1650</i>				<i>24 HR</i>
1.	<i>4.026 x</i>	<i>.875</i>	<i>367</i>	<i>11.1</i>	<i>79</i>	<i>1400</i>	<i>60</i>			<i>24 HR</i>
2.										
3.										
4.										
5.										
RATE OF FLOW CALCULATIONS										
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd			
1.	<i>3.630</i>	<i>64.96</i>	<i>380.2</i>	<i>.9822</i>	<i>1.241</i>	<i>1.034</i>	<i>297</i>			
2.										
3.										
4.										
5.										
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <i>19.8</i> Mcf/bbl.					
1.	<i>.56</i>	<i>539</i>	<i>1.45</i>	<i>.936</i>	A.P. L Gravity of Liquid Hydrocarbons <i>54.7</i> Deg.					
2.					Specific Gravity Separator Gas <i>.795</i> XXXXXXXXXX					
3.					Specific Gravity Flowing Fluid XXXXX					
4.					Critical Pressure <i>673</i> P.S.I.A. <i>669</i> P.S.I.A.					
5.					Critical Temperature <i>371</i> R <i>417</i> R					
P _c <i>1663.2</i> P _w <i>2766.2</i>										
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{3.606}{1.006}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{3.606}{1.006}$					
1.	<i>1997.1</i>	<i>1413.9</i>	<i>1999.2</i>	<i>767.0</i>						
2.										
3.										
4.										
5.										
Absolute Open Flow <i>1006</i> Mcfd @ 15.025					Angle of Slope θ <i>45°</i>		Slope, n <i>1.000</i>			
Remarks: <i>Well made 15 BBL oil API Gravity 54.7@ 60°</i>										
Approved By Division			Conducted By: <i>Pro Well Testing</i>			Calculated By: <i>MB</i>		Checked By: <i>BM</i>		