

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-9-87																																																																																									
Company LADD PETROLEUM CORP.				Connection																																																																																									
Pool				Formation DAKOTA																																																																																									
Completion Date 7/1/87		Total Depth 6360'		Plug Back TD 6230'																																																																																									
Elevation 5737' KB		Farm or Lease Name BUTTE																																																																																											
Csg. Size 4 1/2"	WI.	d	Set At 6359'	Perforations: From 6110' To 6194'																																																																																									
Thq. Size 1 1/2"	WI.	d	Set At 6135'	Perforations: From To																																																																																									
Type Well - Single - Dradenhead - G.C. or G.O. Multiple SINGLE				Packer Set At -																																																																																									
Producing Thru TBG		Reservoir Temp. °F p		Baro. Press. - P _a																																																																																									
L		H	Gg	% CO ₂	% N ₂																																																																																								
				% H ₂ S	Prover																																																																																								
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COUNTY SAN JUAN																																																																																													
STATE N.M.																																																																																													
<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 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></td> <td></td> <td></td> <td>I33I</td> <td></td> <td>I33I</td> <td></td> </tr> <tr> <td>1.</td> <td></td> <td></td> <td>.750</td> <td></td> <td></td> <td></td> <td>5I</td> <td>68</td> <td>436</td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></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.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	SI							I33I		I33I		1.			.750				5I	68	436		2.											3.											4.											5.										
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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	I2.3650			.9924	.9608	I.010	750																																																																																						
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NO.	R	Temp. °R	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas _____ 650 Specific Gravity Flowing Fluid _____ X X X X X Critical Pressure _____ P.S.I.A. Critical Temperature _____ R																																																																																										
1.																																																																																													
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P _c 134.3 P _c ² 1803649			(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1252$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0925$																																																																																										
NO	P _i ²	P _w	P _w ²	P _c ² - P _w ²																																																																																									
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AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 819$																																																																																													
Absolute Open Flow 819					Mcf @ 15.025		Angle of Slope @		Slope, n .75																																																																																				
Remarks: Very heavy fog of water @ dist illate through out test.																																																																																													
Approved By Division			Conducted By: C. R. Wagner			Calculated By: C. R. Wagner			Checked By: Mike Zachary																																																																																				