

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3/11/86	
Company ARCO Oil & Gas Co., Div. of Atlantic Richfield Co.					Connection None	
Pool Basin Dakota					Formation Dakota	
Completion Date 2/28/86		Total Depth 6830		Plug Back TD 6737		Elevation 5822GL
Casing Size 4-1/2"		Wt. 11.6		Set At 6828		Perforations: From 6458 To 6550
Tub. Size 2-3/8"		Wt. 4.7		Set At 6439		Perforations: From To
Type Well - Single - Brdenhead - G.C. or G.O. Multiple Single Gas					Packer Set At None	
Producing Thru Tubing					Baro. Press. - P _a 12 Est.	
Reservoir Temp. °F 8		Mean Annual Temp. °F		State New Mexico		
L 6439		H 6439		G _g .700		% CO ₂ % N ₂ % H ₂ S Prover 2"
Meter Run		Taps				

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	2"		.750				1397		1397		12 days SI
1.				125		74	245		717		3 hrs.
2.											
3.											
4.											
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	9.453		137	.9868	1.195	1.015	1550
2.							
3.							
4.							
5.							

NO.	P _a	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	.21	534	1.36	.970	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas .700
3.					Specific Gravity Flowing Fluid _____
4.					Critical Pressure 668
5.					Critical Temperature 392

$P_c = 1409$ $P_c^2 = 1985281$					APR 8 7 1986																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>P₁²</th> <th>P_w</th> <th>P₂²</th> <th>P₂² - P₁²</th> </tr> <tr> <td>1</td> <td>66049</td> <td>354</td> <td>125302</td> <td>1859979</td> </tr> <tr><td>2.</td><td></td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td></tr> </table>					NO.	P ₁ ²	P _w	P ₂ ²	P ₂ ² - P ₁ ²	1	66049	354	125302	1859979	2.					3.					4.					5.					$(1) \frac{P_c^2}{P_2^2 - P_1^2} = 1.0674$ $(2) \left[\frac{P_c^2}{P_2^2 - P_1^2} \right]^n = 1.0501$	
NO.	P ₁ ²	P _w	P ₂ ²	P ₂ ² - P ₁ ²																																
1	66049	354	125302	1859979																																
2.																																				
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5.																																				
$AOF = Q \left[\frac{P_c^2}{P_2^2 - P_1^2} \right]^n = 1628$																																				

Absolute Open Flow <u>1628</u>		Mcf @ 15.025		Angle of Slope @ _____		Slope, n <u>.750</u>	
Remarks: _____							