

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4/16/80			
Company ARCO Oil & Gas Company, Div. of Atlantic Richfield Co.						Connection None			
Pool Basin Dakota						Formation Dakota			
Completion Date 4/4/80		Total Depth 6530		Plug Back TD 6490		Elevation 5802 GL		Farm or Lease Name Krause WN Fed.	
Coq. Size 4 1/2"	Wt. 10.5#	d 4.052	Set At 6530	Perforations: From 6189 To 6306		Well No. 5E			
Thq. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 6162	Perforations: From To		Unit E	Sec. 28	Twp. 28N	Rge. 11W
Type Well - Single - Brdenhead - G.C. or G.O. Multiple Single Gas						Packer Set At None		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F #		Mean Annual Temp. °F		Baro. Press. - P _a 12.0		State New Mexico	
L 6162	H 6162	G _g 0.700(est)	% CO ₂	% N ₂	% H ₂ S	Prover 2"	Meter Run	Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover 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							1162		1163		SI 12 days Flow 3 hrs
1.	2"	0.750		63		80°	136		372		
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 O. Mcfd
1	9.453		75	.9813	1.195	1.000	831
2.							
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio 11048 Mcf/bbl.
1.	.11	540	1.38	*	A.P.I. Gravity of Liquid Hydrocarbons 43.8 @ 60° Deg.
2.					Specific Gravity Separator Gas 0.700(est) XXXXXXXXXX
3.					Specific Gravity Flowing Fluid XXXXX
4.					Critical Pressure 668 P.S.I.A.
5.					Critical Temperature 392 R

P _c 1175	P _c ² 1380625		
NO.	P _t ²	P _w	P _w ²
1	21904	196	38325
2			
3			
4			
5			

(1) $\frac{P_c^2}{P_w^2 - P_c^2} = 1.0286$		(2) $\frac{P_c^2}{P_w^2 - P_c^2} = 1.0214$
$AOF = Q \left[\frac{P_c^2}{P_w^2 - P_c^2} \right]^n = 849$		

Absolute Open Flow 849 Mcfd @ 15.025	Angle of Slope @	Slope, n .750
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Remarks: * P_n too low for tables
Well tested thru 48/64" choke.

Approved By Division	Conducted By Rex Hitchcock, Jr.	Calculated By Rex Hitchcock, Jr.	Checked By
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