

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-4-83		SEP 16 1983	
Company Southland Royalty Company				Connection Northwest Pipeline Corporation		OIL CON. DIV.	
Pool Gavilan				Formation Pictured Cliffs Ext.		Unit DIST. 3	
Completion Date 7-15-83		Total Depth 3520'		Plug Back TD 3496'		Elevation 7321' GL	
Farm or Lease Name Hawk Federal		Well No. 1					
Csq. Size 2.875	Wt. 6.4#	d 2.441	Set At 3504'	Perforations: From 3397' To 3456'			
Thq. Size ---	Wt. ---	d ---	Set At ---	Perforations: From To		Unit Sec. Twp. Rye. A 35 25N 2W	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At ---		County Rio Arriba	
Producing Thru Casing		Reservoir Temp. °F 8		Mean Annual Temp. °F 12.2		State New Mexico	
L	H	Gq	% CO ₂	% N ₂	% H ₂ S	Prover	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									810		
1.	2"	X	3/4"						35		1 hr
2.									33		2 hrs
3.									28		3 hrs
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	12,365		40.2	1.000	.9258	1.000	460
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

$P_c = 822.2$ $P_c^2 = 676012.8$

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		40.2	1616.0	674396.8
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0024$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0020$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 461$

Absolute Open Flow	461	Mcfd @ 15.025	Angle of Slope @	Slope, n .85
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Remarks: _____

Approved by Division	Conducted By: Dewayne Horton	Calculated By: James Smith	Checked By: C. C. Parsons
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