MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 9-1-58

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 11-21-78	
Company: Northwest Pipeline Corporation		Connection: New Well			
Pool: Basin		Formation: Dakota		Unit: San Juan 29-5	
Completion Date: 11-14-78	Total Depth: 8000	Plug Back TD: 7982	Elevation: 6650	Farm or Lease Name: San Juan 29-5 Unit	
Csg. Size: 7.000 / 4.500	Wt.: 20.0 / 10.5	d: 6.456 / 4.052	Set At: 3800 / 8000	Perforations: From 7954 To 7966	Well No.: #89
Tbg. Size: 2.387	Wt.: 4.7	d: 1.995	Set At: 7973	Perforations: From To	Unit: K Sec.: 34 Twp.: 29 Rge.: 5
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Gas - Single			Packer Set At: None		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a: 12.0		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover:	Meter Run	Taps
		.60				3/4" Choke		

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							2011		2215		SIP
1.	2"	x	.750	210		58°	210		843		3 hr.
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	9.604		222	1.002	1.291	1.025	2827
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas _____ XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX _____

Critical Pressure _____ P.S.I.A. _____ P.S.I.A.

Critical Temperature _____ R _____ R

P_c 2227 P_c^2 4959529

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		855	731025	4228504
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.173$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1270$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3186$

Absolute Open Flow 3186 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .75

Remarks: Produced approximately 6 bbls of water.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	F.S. Hamrick	F.S. Hamrick	B.J. Broughton

BJB/aa