

DELIVERABILITY TEST REPORT

Type Test		☐ Initial ☐ Annual ☒ Special		Test Date 1-26-01	
Company Read & Stevens, Inc.			Connection GPM Gas Corporation		
Pool Buffalo Valley			Formation Morrow		Unit
Completion 4-19-97		Total Depth 9050'		Plug Back TD 8998'	
Elevation 3492 GR		Farm or Lease Name Harris Federal			
Csq. Size 5 1/2"	Wt. 17#	d 4.892	Set At 9040'	Perforations: From 8654' To 8678'	
Tbg. Size 2 3/8"	Wt. 4.6#	d 1.995	Set At 8546'	Perforations: From To	
Type Well—Single—Erodenthead—G.C. or G.O. Multiple Single				Packer Set At 8546'	
Producing Thru Tubing		Reservoir Temp. °F 157 @ 8660'		Mean Annual Temp. °F 60	
Baro. Press. — P _a 13.2		State New Mexico			
L 8666	H 8666	Cq. 0.634	% CO ₂ 0.3	% N ₂ 1.20	% H ₂ S
Prover		Meter Run		Tps	
FLOW DATA			TUBING DATA		CASING DATA
NO.	Prover Line Size	X Choke Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F
SI	Total Flow Meter				73
1.					65
NO.	Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor F _g
1.				0.9962	1.256
NO.	P _r	Temp. R.	T _r	Z	Gas Liquid Hydrocarbon Ratio
	0.259	524	1.54	0.976	Dry
					A.P.I. Gravity of Liquid Hydrocarbons
					Dry
					Specific Gravity Separator Gas
					0.634
					XXXXXXXXXX
					Specific Gravity Flowing Fluid
					XXXXXX
					Critical Pressure
					670 p.s.i.a.
					Critical Temperature
					370 R
					Pf
					pt ²
NO.	P _i	P _i ²	P _c ² - P _i ²	P _w	P _w ²
	173	30	81	246.3	60.7
					37.4
					296.4
					87.8
					P _i ² - P _s ²

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \left[\frac{98.1 - 3.75}{98.1 - 60.7} \right] = 2.520$$

$$\log \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = 0.4014$$

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 1.587$$

$$n \log \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = 0.201$$

$$\text{Deliv.} = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n$$

Division

Company

Others

Deliv. 1,524 Mcfd

n 0.50

Multi Point Back Pressure Test

(Source of n)

Read & Stevens, Inc.

