N. M. O. C. C. COPY

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test			Test Date	
[X] Initial	[ ] Annual	[ ] Special		

Company	Connection		Unit
Black River Corporation	El Paso Natural Gas		H
Pool	**Formation**		**Unit**
Washington Ranch	Morrow		H

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
6/11/72	7125	7075	3780 KB	BR- Federal "A"

Csg. Size	Wt.	d	Set At	Perforations:	Well No.
5-1/2	14-15.5		7125	From 6953 To 6964	1-G

Tbg. Size	Wt.	d	Set At	Perforations:	Unit	Sec.	Twp.	Rge.
2-7/8	6.5	2.441	6975	From To	H	4	26S	24E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
G. G. Multiple	6975	Eddy

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
Csg	130 @ 6958	60	13.2	New Mexico

–	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
6958	6958	0.57			-0-		4"	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI	24 hours						2430		
1.	4 x 2.250	320	10	66			2129	80	60
2.	4 x 2.250	330	23.5	65			1952	80	60
3.	4 x 2.250	355	45	86			1725	87	60
4.	4 x 2.250	365	59	62			1537	88	60
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.	25.64	57.7	333.2	0.9943	1.325	1.025	1998
2.	25.64	89.8	343.2	0.9952	1.325	1.026	3115
3.	25.64	128.7	368.2	0.9759	1.325	1.024	4369
4.	25.64	149.4	378.2	0.9971	1.325	1.027	5197
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	0.50	526	1.52	0.951
2.	0.51	525	1.52	0.950
3.	0.55	546	1.58	0.954
4.	0.56	522	1.51	0.949
5.				

Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons -0- Deg.

Specific Gravity Separator Gas 6.57 XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX

Critical Pressure 672 P.S.I.A. P.S.I.A.

Critical Temperature 346 R R

	P_c^2	P_w	P_w^2	$P_c^2 - P_w^2$
SI	2443.2		5969.2	
1.	4589.0		4593.4	1375.8
2.	3862.0		3872.6	2096.6
3.	3021.3		3042.7	2926.5
4.	2372.2		2402.9	3566.3
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6738$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.645$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8549$ Mcfd

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ARTESIA, NEW MEXICO

Absolute Open Flow 8549 Mcfd @ 15.025 Angle of Slope θ 46° Slope (n) 0.968

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. T. Berry	J. T. Berry	