STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED Form C-122 Revised 10-1-78

45F File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

OCT 3 '89

O. C. D.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 6/5/89	
Company: BILL FENN		Connection: AIR			Unit
Pool: Fruitland Pace Y Penn		Formation: ~~Cisco~~ Upper Penn.			
Completion Date: 6/3/89	Total Depth: 9564	Plug Back TD: 9087	Elevation: 3804	Farm or Lease Name: ROARING SPRINGS	
Csg. Size: 4.500 / Wt.: 11.6 / d: 4.000 / Set At: 9564		Perforations: From 7438 To 7478		Well No.: 1	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 7268		Perforations: From 0 To 0		Unit: J / Sec.: 14 / Twp.: 21S / Rge.: 23E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: DUAL		Packer Set At: 7268		County: EDDY	
Producing Thru: TUBING	Reservoir Temp. °F: 152 @ 7458	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NEW MEXICO	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
7458	7458	.624	.69	.83	.00	.0	4.0	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					1560	78			72
1.	4.03 X .750	210	6	79	1510	68	PKR	0	1
2.	4.03 X .750	210	18	80	1430	63	PKR	0	1
3.	4.03 X .750	210	40	80	1140	60	PKR	0	1
4.	4.03 X .750	210	90	80	980	60	PKR	0	1
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	2.66	36.60	223.2	.9822	1.2659	1.0178	123
2.	2.66	63.38	223.2	.0913	1.2659	1.0177	213
3	2.66	94.49	223.2	.9813	1.2659	1.0177	318
4.	2.66	141.73	223.2	.9813	1.2659	1.0177	477
5.							

NO.	P_t	Temp. °R	T_f	Z
1	.33	539	1.49	.965
2.	.33	540	1.49	.966
3.	.33	540	1.49	.966
4.	.33	540	1.49	.966
5.				

Gas Liquid Hydrocarbon Ratio .0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons .0 Deg.

Specific Gravity Separator Gas	.624	XXXXXXXXX
Specific Gravity Flowing Fluid	XXXXX	.624
Critical Pressure	673 P.S.I.A.	673 P.S.I.A.
Critical Temperature	363 R	363 R

P_c 1564.5 P_c^2 2448

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	2320	1520	2311	137
2	2083	1443	2082	365
3	1330	1155	1334	1114
4	986	966	992	1455
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6819$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3482$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 643$

Absolute Open Flow 643 Mcfd @ 15.025 Angle of Slope θ 60.1 Slope, n .575

Remarks: CHOKE SIZE: 1ST RATE 3/64 2ND RATE 5/64
3RD RATE 6/64 4TH RATE 8/64

Approved By Division	Conducted By:	Calculated By:	Checked By:
	BENNETT-CATHEY	MATT LEE	