

MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

1- File
1- C-122 File
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-11-78		APR 14 1978	
Company Atlantic Richfield Company				Connection Gas Company of New Mexico				
Pool Avalon Strawn				Formation Strawn				Unit
Completion Date 11-21-77		Total Depth 11,010'		Plug Back TD 10,967'		Elevation 3213.7 G.L.		Farm or Lease Name Pecos Fed Gas Com
Cas. Size 5 1/2"	Wt. 17	d 4.892	Set At 11,007'	Perforations: From 9650' To 9708'		Well No. 1		
Tub. Size 2-7/8"	Wt. 6.5	d 2.441	Set At 9,553'	Perforations: From Open To Ended		Unit I 32-22'	Soc. 20S	Twp. 27E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 9531'		County Eddy	
Producing Thru Tbg		Reservoir Temp. °F 158 @ 9679		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico
L 9553	H 9553	G _g .678	% CO ₂ .41	% N ₂ 1.14	% H ₂ S 0.00	Prover	Meter Run 4"	Taps Flg

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							1416	52	Pkr		95
1.	4 x 1.75			251	8.4	78	1343	68			1 hr.
2.	4 x 1.75			259	21.2	78	1315	69			1 1/4 hr.
3.	4 x 1.75			271	37.2	82	1273	72			1 hr.
4.	4 x 1.75			293	94.1	75	1118	73			1 hr.
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	14.93	47.11	264.2	.9831	1.214	1.024	860
2	14.93	75.96	272.2	.9831	1.214	1.026	1388
3	14.93	102.82	284.2	.9795	1.214	1.026	1873
4	14.93	169.75	306.2	.9859	1.214	1.030	3124
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>105</u> Mcf/bbl.
1	.39	538	1.43	.953	A.P.I. Gravity of Liquid Hydrocarbons <u>59.6</u> Deg.
2	.41	538	1.43	.950	Specific Gravity Separator Gas <u>0.678</u> XXXXXXXXXX
3	.42	542	1.44	.950	Specific Gravity Flowing Fluid <u>XXXXXX</u> 0.705
4	.46	535	1.42	.944	Critical Pressure <u>669</u> P.S.I.A. 668 P.S.I.A.
5					Critical Temperature <u>377</u> °R 387 °R

NO.	P _t ²	* P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.184$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.2997$
1		1870.2	3497.6	193.4	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7,184$	
2		1821.2	3316.8	374.2		
3		1763.2	3108.9	582.1		
4		1591.2	2531.9	1159.1		
5						

Absolute Open Flow <u>7,184</u> Mcfd @ 15.025		Angle of Slope Θ <u>54° 17'</u>	Slope, n <u>0.719</u>
Remarks: * BHP @ Mid Perfs used for pressure calculations			
Approved By Commission:	Conducted By: C. Johnson	Calculated By: J. Cogburn	Checked By: L. C. Hudry