

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-4-78			
Company Yates Petroleum Corporation						Connection El Paso Natural Gas Co.		MAY 26 1978	
Pool Richard Knob Atoka-Morrow				Formation Atoka-Morrow		Unit O.C.C. ARTESIA, OFFICE			
Completion Date 11-30-77		Total Depth 8555'		Plug Back TD 8456'		Elevation 3605' KB		Farm or Lease Name Federal "AB" Com	
Csq. Size 5 1/2"	Wt. 17#	d 4.892	Set At 8500'	Perforations: From 8212' To 8390' KB		Well No. 2			
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 8185'	Perforations: From To		Unit 0	Sec. 5	Twp. 18S	Rge. 25E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 8185' KB		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 142 @ 8300		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State NM	
L 8296	H 8296	G _g 0.605	% CO ₂ 0.56	% N ₂ 0.37	% H ₂ S Nil	Prover	Meter Run 4"	Taps Flanged	

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	of Flow
SI							1788	74			Months
1.	4.026 x 1.500			610	8	76	1430	76			1 hr
2.				611	22	76	1214	78			1
3.				613	43	77	937	80			1
4.				615	59	77	642	83			1
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	70.609	623.2	.9850	1.290	1.0491	1020
2.		117.185	624.2	.9850	1.290	1.0492	1694
3.		164.093	626.2	.9840	1.290	1.0493	2369
4.		192.520	628.2	.9840	1.290	1.0494	2780
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
					701.5	
1.	.926	536	1.499	.9085	A.P.I. Gravity of Liquid Hydrocarbons	59.0 Deg.
2.	.927	536	1.499	.9084	Specific Gravity Separator Gas	0.601
3.	.930	537	1.502	.9083	Specific Gravity Flowing Fluid	XXXXXX
4.	.933	537	1.502	.9081	Critical Pressure	673 P.S.I.A.
5.					Critical Temperature	357.5 R

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2367$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2367$
1			3104	1728		
2			2291	2541		
3			1479	3353		
4			925	3907		
5						

Absolute Open Flow		3438	Mcf/d @ 15.025	Angle of Slope	45 deg.	Slope, n	1.000
--------------------	--	------	----------------	----------------	---------	----------	-------

Remarks: Static Pressures are log-mean average of Morrow & Atoka pressures run by Bennett Wireline. Flowing pressures by DWT. Calculations work sheet attached.	
Approved By Commission:	Conducted By: David Weaver
Calculated By: Eddie Mahfood	Checked By: