

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

File

122 file

Cpt

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 5-23-77	
Company Yates Petroleum Corp.		Connection Transwestern Pipeline Co.	
Pool Kennedy Farms		Formation Morrow	
Completion Date 3-9-77	Total Depth 8725' KB	Plug Back TD 8559' KB	Elevation 3356' KB
Farm or Lease Name Tom Brown "GO" Com		Well No. 1	
Csg. Size 5 1/2"	Wt. 17#	Set At 4.892	Perforations: 8398 To 8512 KB
Tbg. Size 2-3/8"	Wt. 4.7#	Set At 1.995	Perforations: 8346 To 8349 KB
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 8340' KB	County Eddy
Producing Thru Tubing	Reservoir Temp. °F 143 @ 8370	Mean Annual Temp. °F 62	Baro. Press. - P _a 13.2
L 8440	H 8440	G _g	% CO ₂ 0.97
			% N ₂ 0.39
			% H ₂ S Nil
			Prover 2"
			Meter Run Flange
			Taps

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	Weeks
1.	2.067 x 0.875			585	13	78	2639	68			1 hour
2.				588	23	79	2573	70			1 hour
3.				590	44	78	2460	72			1 hour
4.				592	67	75	2334	74			1 hour
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	4.166	88.19	598.2	.9831	1.272	1.0491	482
2		117.59	601.2	.9822	1.272	1.0489	642
3		162.91	603.2	.9831	1.272	1.0494	891
4		201.37	605.2	.9859	1.272	1.0497	1104
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	137.0 Mcf/bbl.
1	.887	538	1.486	.9085	A.P.I. Gravity of Liquid Hydrocarbons	56.3 Deg.
2	.891	539	1.489	.909	Specific Gravity Separator Gas	0.618
3	.894	538	1.486	.908	Specific Gravity Flowing Fluid	0.639
4	.897	535	1.478	.9075	Critical Pressure	674.5 P.S.I.A.
5					Critical Temperature	370 R

NO.	P _t	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.6468$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.4346$
1			11047	1002		
2			10528	1521		
3			9663	2386		
4			8745	3304		
5						

Absolute Open Flow 2688 Mcfd @ 15.025		Angle of Slope 55.5 deg	Slope, n 0.6877
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Remarks: **Static pressures by Bennett Wireline. Flowing pressures by DWT. Calculations worksheet attached.**

Approved By Commission:	Conducted By: Ronnie Willis	Calculated By: Eddie Mahfood	Checked By:
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