NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPC AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

JUN 13 1978

O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 4-13-78	
Company: Yates Petroleum Corp.			Connection: El Paso Natural Gas Company		
Pool: So. Millman Morrow			Formation: Morrow		Unit: Lse # K-6653
Completion Date: 11-10-77	Total Depth: 11171' KB		Plug Back TD: 11106' KB	Elevation: 3491' KB	Farm or Lease Name: Millman "HD St.Com
Csg. Size: 5½" / Wt.: 17# / d: 4.892 / Set At: 11168' KB			Perforations: From 11096 To 11106' KB		Well No.: 2
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 11094' KB			Perforations: From 11042 To 11045' KB		Unit: B / Sec.: 17 / Twp.: 19S / Rge.: 28E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 11036'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 167 @ 11100	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2		State: NM

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11090	11090	.754	0.62	0.31	Nil	-	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					4167	47			Week
1.	4.026 x 2.000	610	6	85	3948	62			1 hr
2.		611	14	83	3666	65			1 hr
3.		612	29	81	3415	68			1 hr
4.		614	56	80	3078	71			1 hr
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	19.81	61.15	623.2	.9768	1.2659	1.0497	1572
2.		93.48	624.2	.9768		1.0501	2409
3.		134.65	625.2	.9804		1.0505	3478
4.		187.41	627.2	.9813		1.0508	4846
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.926	545	1.493	.9076
2.	.9275	543	1.488	.9069
3.	.929	541	1.482	.9061
4.	.932	540	1.480	.9056
5.				

Gas Liquid Hydrocarbon Ratio 20.57 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.3 Deg.
Specific Gravity Separator Gas 0.624 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx 0.749
Critical Pressure 673 P.S.I.A. 669 P.S.I.A.
Critical Temperature 365 R 406 R

P_c 5706 P_c^2 32558

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			29696	2862
2			26479	6079
3			23961	8597
4			20940	11618
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.8024$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.8024$

ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1358$

Absolute Open Flow 13580 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.000

Remarks: Static Pressures by Bennett Wireline, flowing pressures by DWT.
Calculations Work Sheet c-122D attached

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Bill Trembley, Jr.	Eddie Mahfood	