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

Form C-122
Revised 9-1-65

RECEIVED
MAR 24 1977
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 1-24-77	
Company: Yates Petroleum Corp.	Connection: Transwestern Pipeline Co.			Lease: K-4942
Pool: ~~Undesignated~~ Eagle Creek Strawn	Formation: Strawn			Unit
Completion Date: 12-2-75	Total Depth: 8590'KB	Plug Back TD: 8157'KB	Elevation: 3462'KB	Farm or Lease Name: ARCO State "~~EC~~"
Csg. Size: 4½" / Wt.: 11.6 / d: 4.000 / Set At: 8202		Perforations: From 7988 To 7996		Well No.: 2
Tbg. Size: 2-3/8" / Wt.: 4.7 / d: 1.995 / Set At: 7945'KB		Perforations: From To		Unit: I / Sec.: 36 / Twp.: 17S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 7945'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 132	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
7977	7977		0.57	0.33	Nil		2"	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					2415	52			Months
1.	2.067 X 0.750	277	8	62	2284	53			1 hr.
2.		278	28	62	2132	54			1 hr.
3.		279	56	62	2017	55			1 hr.
4.		280	88	62	1875	56			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	2.709	48.183	290.2	.9981	1.262	1.0279	169
2.		90.297	291.2	.9981	1.262	1.0280	317
3.		127.919	292.2	.9981	1.262	1.0281	449
4.		160.629	293.2	.9981	1.262	1.0281	564
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.430	522	1.415	.9465
2.	.432	522	1.415	.9463
3.	.434	522	1.415	.9461
4.	.435	522	1.415	.9460
5.				

Gas Liquid Hydrocarbon Ratio 102 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.1 Deg.
Specific Gravity Separator Gas 0.628 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx 0.657
Critical Pressure 674 P.S.I.A. 672 P.S.I.A.
Critical Temperature 369 R 375.5 R

P_c 3068.1 P_c^2 9413

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			8457	956
2			7525	1888
3			6624	2789
4			5727	3686
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.375$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.9537$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1326$

Absolute Open Flow 1326 Mcfd @ 15.025 Angle of Slope θ 48.3 deg. Slope, n 0.89038

Remarks: Tubing pressures by DWT. Calculation worksheet C-122D attached hereto. BH Pressure is comparable with DST data.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Don Weaver	Eddie Mahfood	