EW MEXICO OIL CONSERVATION CC SSION

Form C-122
Revised 9-1-65

MULTIPOINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

JUL 19 1977

O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 5-18-77	
Company: Yates Petroleum Corp.			Connection: El Paso Natural Pipeline Co.		
Pool: East Burton Flat Atoka			Formation: Atoka		Unit: NM 03677
Completion Date: 2-7-77	Total Depth: 11,909'KB		Plug Back TD: 11,872'KB	Elevation: 3279'KB	Farm or Lease Name: Stebbins "GQ" Com
Csg. Size: 5½" / Wt.: 20# / d: 4.778 / Set At: 11895'KB			Perforations: From 10,875' To 10,882'KB		Well No.: 1-[redacted]
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 10873'KB			Perforations: From 10,824' To 10,827'KB		Unit: B / Sec.: 20 / Twp.: 20S / Rge.: 29E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single (Morrow temp. abandoned)			Packer Set At: 10,818'KB		County: Eddy
Producing Thru: tubing	Reservoir Temp. °F: 173 @ 10,825'	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
10,863	10,863		0.45	0.81	Nil		4"	Flange

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					5275	67			Months
1.	4.026 X 1.750	472	8	66	4906	73			1 hr.
2.		476	14	68	4700	77			1 hr.
3.		490	41	74	4030	79			1 hr.
4.		504	71	78	3353	80			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	14.93	62.30	485.2	.9943	1.302	1.0381	1250
2.		82.76	489.2	.9924		1.0380	1657
3.		143.64	503.2	.9868		1.0378	2859
4.		191.63	517.2	.9831		1.0375	3799
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.721	526	1.499	0.928
2.	0.727	528	1.504	0.928
3.	0.748	534	1.521	0.9285
4.	0.768	538	1.533	0.929
5.				

Gas Liquid Hydrocarbon Ratio	401.2 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	51.8 Deg.	
Specific Gravity Separator Gas	0.590	xxxxxxxxx
Specific Gravity Flowing Fluid	xxxxx	.598
Critical Pressure	673 P.S.I.A.	672.5 P.S.I.A.
Critical Temperature	351 R	354.5 R

P_c 6456.2 P_c^2 41682

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			36547	5135
2			33899	7783
3			25892	15790
4			18823	22859
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8234$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5744$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5981$

Absolute Open Flow 5981 Mcfd @ 15.025 | Angle of Slope θ 53° | Slope, n 0.7555

Remarks: Pressures by DWT. Calculations worksheet attached.

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