File - C-122a file

N MEXICO OIL CONSERVATION COMM ON

Form C-122
Revised 1-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

RECEIVED
JAN 10 1979
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 11-14-78	
Company: Yates Petroleum Corp. ✓	Connection: Transwestern Pipeline Co.			Unit: ~~NW 2317~~
Pool: W. Cottonwood Creek ~~U/C~~	Formation: Wolfcamp			
Completion Date: 5-28-77	Total Depth: 7129' KB	Plug Back TD: 4956' KB	Elevation: 3691' KB	Farm or Lease Name: Collins "HS" Fed.
Csg. Size: 4-1/2" / Wt.: 10.5# / d: 4.052 / Set At: 4974' KB		Perforations: From 4767 To 4837'		Well No.: 1
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 4745' KB		Perforations: From To		Unit: G / Sec.: 35 / Twp.: 16S / Rge.: 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 4745' KB		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 106 @ 4794	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
4794	4794	0.635	0.18	0.79	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					1705	38			months
1.	2.067 x 0.500	200	7	45	1298	49			1 hour
2.		200	15	45	936	53			1 hour
3.		200	28	45	750	56			1 hour
4.		200	39	45	660	58			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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	1.189	38.63	213.2	1.015	1.255	1.0222	60
2.	1.189	56.55	213.2	1.015	1.255	1.0222	88
3.	1.189	77.26	213.2	1.015	1.255	1.0222	120
4.	1.189	91.19	213.2	1.015	1.255	1.0222	141
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.315	505	1.374	.957
2.	0.315	505	1.374	.957
3.	0.315	505	1.374	.957
4.	0.315	505	1.374	.957
5.				

Gas Liquid Hydrocarbon Ratio ------ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ------ Deg.
Specific Gravity Separator Gas 0.635 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX ------
Critical Pressure 670.5 P.S.I.A. --- P.S.I.A.
Critical Temperature 367.5 R ----- R

P_c 1981.7 P_c^2 3927

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			2244	1683
2			1158	2769
3			742	3185
4			575	3352
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1715$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1715$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 165$

Absolute Open Flow 165 Mcfd @ 15.025 | Angle of Slope θ 45 | Slope, n 1.000

Remarks: Low capacity well, very slow to stabilize. Pressures by deadweight tester. Calculations worksheet C-122D attached.

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