EW MEXICO OIL CONSERVATION CC SSION

MULTIPOIN AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

2F
122 file
file

RECEIVED
SEP 13 1977
O. C. C.
ARTESIA, OFFICE

f $609
1-1-78

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 7-14-77	
Company: Yates Petroleum Corp.		Connection: El Paso Natural Gas Company			
Pool: ~~Undesignated~~ Wildcat Morrow S. Millman		Formation: Morrow		Unit: K6653	
Completion Date: 4-5-77	Total Depth: 11,266'KB	Plug Back TD: 11,089'KB	Elevation: 3545'KB	Farm or Lease Name: Millman"HD"State Com	
Csg. Size: 5½" / Wt.: 17# / d: / Set At: 11,146'KB		Perforations: From 10,848' To 11,050'KB		Well No.: 1 Gas	
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: / Set At: 10,846'KB		Perforations: From To		Unit: O / Sec.: 17 / Twp.: 19S / Rge.: 28E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 10,792'KB		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 160 @ 10,800	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
10,937	10,937		0.67	0.31	Nil		4	Flanged

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					3398	68			72 hr.
1.	4.026 X 1.250	458	12	80	3244	73			1 hr.
2.		460	26	80	3204	76			1 hr.
3.		462	41	80	3102	78			1 hr.
4.		465	80	79	2830	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	7.469	75.20	471.2	.9813	1.265	1.0392	725
2.		110.92	473.2	.9813	1.265	1.0392	1069
3.		139.58	475.2	.9813	1.265	1.0395	1345
4.		195.59	478.2	.9822	1.265	1.0397	1887
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.700	540	1.479	.926
2.	.703	540	1.479	.926
3.	.706	540	1.479	.9255
4.	.710	539	1.477	.925
5.				

Gas Liquid Hydrocarbon Ratio 19837/310 63.99 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 54.7 Deg.
Specific Gravity Separator Gas 0.625 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx .676
Critical Pressure 673 P.S.I.A. 672 P.S.I.A.
Critical Temperature 365 R 383 R

P_c 4559.2 P_c^2 20786

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			19119	1667
2			18704	2082
3			17664	3122
4			15046	5740
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.6099$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.0554$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3879$

Absolute Open Flow 3879 Mcfd @ 15.025 Angle of Slope θ 60.7 Slope, n 0.56126

Remarks: Static Pressures by Bennett Wireline, flowing pressures by DWT.
Calculations work sheet attached.

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