ST Full
FV Oper.

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP 12 1980
O. C. D.
ARTESIA, OFFICE

Type Test: [XX] Initial [ ] Annual [ ] Special — Test Date: 7-14-80

Company: Yates Petroleum Corp.	Connection: Transwestern Pipeline Co.		Unit: LG 567
Pool: ~~Wildcat Abo~~ Pecos Slope - Abo Gas	Formation: Abo		
Completion Date: 11-29-79	Total Depth: 5096' KB	Plug Back TD: 5049' KB	Elevation: 3878' KB
Farm or Lease Name: Grynberg "LZ" State			
Csg. Size: 5-1/2" / Wt.: 14# / d: 5.012 / Set At: 5096'	Perforations: From 3910 To 3946'		Well No.: 1
Tbg. Size: 2-7/8" / Wt.: 6.5# / d: 2.441 / Set At: 3873'	Perforations: From To		Unit: I / Sec.: 36 / Twp.: 5S / Rge.: 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 3873'		County: Chaves
Producing Thru: Tubing	Reservoir Temp. °F: 97 @ 3928'	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
3923	3923	0.677	3.46	5.12	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	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI					1011	88			Months
1.	2.067 x 0.750	650	13	95	990	78			1 hour
2.		652	24	95	975	80			1 hour
3.		654	46	95	947	81			1 hour
4.		655	91	95	898	82			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	1.866	92.85	663.2	0.9680	1.215	1.0499	214
2.	1.866	126.35	665.2	0.9680	1.215	1.0500	291
3.	1.866	175.19	667.2	0.9680	1.215	1.0501	404
4.	1.866	246.59	668.2	0.9680	1.215	1.0503	568
5.							

NO.	P_t	Temp. °R	T_f	Z
1.	.983	555	1.5205	.9072
2.	.985	555	1.5205	.9070
3.	.988	555	1.5205	.9067
4.	.990	555	1.5205	.9065
5.				

Gas Liquid Hydrocarbon Ratio ----- Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ----- Deg.
Specific Gravity Separator Gas 0.677 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.677
Critical Pressure 675 P.S.I.A. 787 P.S.I.A.
Critical Temperature 365 R 405.5 R

P_c 1149.2 P_c^2 1321

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			1260	61
2			1221	100
3			1152	169
4			1035	286
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.6154$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.5950$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1474$

Absolute Open Flow 1474 Mcfd @ 15.025 — Angle of Slope θ 58 deg — Slope, n .6235

Remarks: Static pressures by Bennett Wireline; Flowing pressures by DWT.
Calculations worksheet C-122D attached.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Bob Gary	Eddie Mahfood	