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

Form C-122
Revised 9-1-65

File ✓ /22

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JUL 9 1979
MESA—PBD

Type Test: [X] Initial [ ] Annual [ ] Special — 7-2-79

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U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Company: MESA PETROLEUM COMPANY		Connection: AIR		Unit
Pool: *Wildcat Morrow*		Formation: MORROW		Unit: *J*
Completion Date: *6-30-79*	Total Depth: 9230	Plug Back TD: 9169	Elevation: 3384	Farm or Lease Name: YATES FEDERAL COM.
Csg. Size: 4 ½ Wt.: 11.6	d	Set At: 9230	Perforations: From 8921 To ~~8969~~ 9069	Well No.: # 1- Y
Tbg. Size: 2 3/8 Wt.: 4.7	d	Set At: 8862	Perforations: From To	Unit: J Sec.: 20 Twp.: 17 Rge.: 27
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: DUAL			Packer Set At: 8857	County: EDDY
Producing Thru: TBG.	Reservoir Temp. °F: 138 @ PERFS	Mean Annual Temp. °F: 60 °	Baro. Press. – P_a: 13.2	State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8862	8862	.609	.52	.42			4 "	FLG.

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					2880				72 HRS.
1.	2 X 1.750	600	7.0	52	2730				1 HR.
2.	2 X 1.750	540	11.0	66	2670				1 HR.
3.	2 X 1.750	510	21.0	76	2600				1 HR.
4.	2 X 1.750	510	43.0	64	2480				1 HR.
5.									

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O. C. C.
ARTESIA, OFFICE

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	65.52	613.2	1.008	1.281	1.061	1340
2.	14.93	78.01	553.2	.9943	1.281	1.049	1556
3.	14.93	104.82	523.2	.9850	1.281	1.044	2062
4.	14.93	149.99	523.2	.9962	1.281	1.047	2992
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.91	512	1.41	.889
2.	.82	526	1.45	.908
3.	.78	536	1.48	.918
4.	.78	524	1.45	.912
5.				

Gas Liquid Hydrocarbon Ratio 39,910 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 51.@ 60 Deg.
Specific Gravity Separator Gas .609 | X X X X X X X X X
Specific Gravity Flowing Fluid X X X X X | .686
Critical Pressure 671 P.S.I.A. | 669 P.S.I.A.
Critical Temperature 362 R | 388 R

P_c 2893.2 P_c^2 8370.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2751.3	7569.7	800.9
2		2694.5	7260.3	1110.3
3		2633.9	6937.4	1433.2
4		2538.1	6442.0	1928.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 4.340

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 4.340

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 12.986

Posted Buy Back 2D 7-27-79 SI

Absolute Open Flow 12,986 Mcfd @ 15.025 | Angle of Slope θ 45 ° | Slope, n 1.000

Remarks: WELL PRODUCED 8.3 BBLS OF DISTILLATE DURING THE TEST.

Approved by Commission:	Conducted By:	Calculated By:	Checked By:
	JOHN R. DAVIS	LARRY C. DAVIS	

cc: MPH, TLS, LC, File MEC – WI OWNERS 7-10-79