

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

File 122 gates
 Form C-122
 Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-22-79		DEC 27 1979	
Company Yates Petroleum Corp.				Connection Transwestern Pipeline Company				Unit O. C. D.	
Pool Boyd Morrow				Formation Morrow				Farm or Lease Name Allison "CO" Fed.	
Completion Date 7-26-79		Total Depth 9260' KB		Plug Back TD 8954' KB		Elevation 3615' KB		Well No. 2	
Csg. Size 4-1/2	Wt. 11.6#	ID 4.000	Set At 9256 KB	Perforations: From 8858 To 8877 KB		Unit Sec. Twp. Rge. L 12-T19S-R24E			
Tbg. Size 2-3/8	Wt. 4.7#	ID 1.995	Set At 8808 KB	Perforations: From To		County Eddy			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 8807' KB		State New Mexico			
Producing Thru Tubing		Reservoir Temp. °F 145 @ 8860		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		Meter Run 2"	
L 8860	H 8860	G _g 0.589	% CO ₂ 0.75	% N ₂ 0.35	% H ₂ S Nil	Prover 2"	Taps Flange		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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	Days
1.	2.067	x	1.375	400	8	80	2533	59			1
2.	2.067	x	1.375	402	14	80	2374	63			1
3.	2.067	x	1.375	405	27	80	2121	67			1
4.	2.067	x	1.375	410	52	80	1706	70			1
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	10.20	57.49	413.2	.9813	1.339	1.0142	781
2.	10.20	76.24	415.2	.9813	1.339	1.0144	1036
3.	10.20	106.26	418.2	.9813	1.339	1.0146	1445
4.	10.20	148.35	423.2	.9813	1.339	1.0147	2017
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.613	640	1.820	.9721	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.616	640	1.820	.9718	Specific Gravity Separator Gas 0.588 X X X X X X X X
3.	.620	640	1.820	.9715	Specific Gravity Flowing Fluid X X X X X .589
4.	.627	640	1.820	.9712	Critical Pressure 674.5 P.S.I.A. 787 P.S.I.A.
5.					Critical Temperature 35.15 R 388 R

NO.	P _t ²	P _w	P _w ²	P _e ² - P _w ²
1.			10402	1248
2.			9132	2518
3.			7293	4357
4.			4733	6917
5.				

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 1.6843$

(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 1.43499$

AOF = Q $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 2894$

P_e 3413.2 P_e² 11650

Absolute Open Flow 2894 Mcfd @ 15.025	Angle of Slope @ _____	Slope, n 0.69273
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Remarks: Static Pressures by Bennett Wireline. Flowing pressures by DWT.

Note: Well unloaded treating water during test. Form C-122D attached.

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