

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-15-81		AUG 17 1981	
Company Yates Petroleum Corporation				Contractor Transwestern Pipeline Co.		O. C. D.	
Pool Boyd Morrow				Formation Morrow		Unit/ARTESIA, OFFICE	
Completion Date 5-8-81		Total Depth 9300' KB		Perforations 9243 KB		Farm or Lease Name Rio Penasco "JX" Com	
Casing Size 5 1/2	Wt. 17#	d 4.892	Set At 9300	Perforations: From 8952 To 8978		Well No. 2	
Tubg. Size 2 7/8	Wt. 6.5#	d 2.441	Set At 8908	Perforations: From To		Unit Sec. Twp. Rge. I 35 18S 25E	
Type Well - Single - Brdenhead - G.C. or G.O. Multiple Single				Packer Set At 3908		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 149 8965		Mean Annual Temp. °F 62		Baro. Press. - P _g 13.2	
L 8965		H 8965	G _g 0.639	% CO ₂ 1.12	% N ₂ 0.70	% H ₂ S 8.7	Prover -----
				Meter Run 2"		Taps Flanged	

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
SI							2740	70			Weeks
1.	2.067 X 1.000			430	12	80	2494	78			20 hrs.
2.	2.067 X 1.000			460	22	80	2206	81			24 hrs.
3.	2.067 X 1.000			475	43	80	1479	83			24 hrs.
4.	2.067 X 1.000			480	69	78	884	84			24 hrs.
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, Mc/d
1	4.946	72.93	443.2	.9813	1.264	1.036	464
2	4.946	102.03	473.2	.9813	1.264	1.039	650
3	4.946	144.89	488.2	.9813	1.264	1.046	924
4	4.946	184.47	493.2	.9831	1.264	1.040	1179
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/tbl.
1	0.656	540	1.4835	.9314	200.85	
2	0.700	540	1.4835	.9270	51.0	
3	0.722	540	1.4835	.9248		
4	0.730	538	1.4780	.9240		
5						

$P_c = 3503.2$ $P_c^2 = 12273$					Gas Liquid Hydrocarbon Ratio <u>200.85</u> Mcf/tbl. A.P.I. Gravity of Liquid Hydrocarbons <u>51.0</u> Deg. Specific Gravity Separator Gas <u>0.626</u> <u>XXXXXXXXXX</u> Specific Gravity Flowing Fluid <u>XXXXX</u> <u>0.6415</u> Critical Pressure <u>676</u> P.S.I.A. <u>695.5</u> P.S.I.A. Critical Temperature <u>364</u> R <u>377.5</u> R	
NO	P _r ²	P _w	P _r ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.1140$	(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.0717$
1			10149	2124		
2			7932	4341		
3			3550	8723		
4			1256	11017		
5						

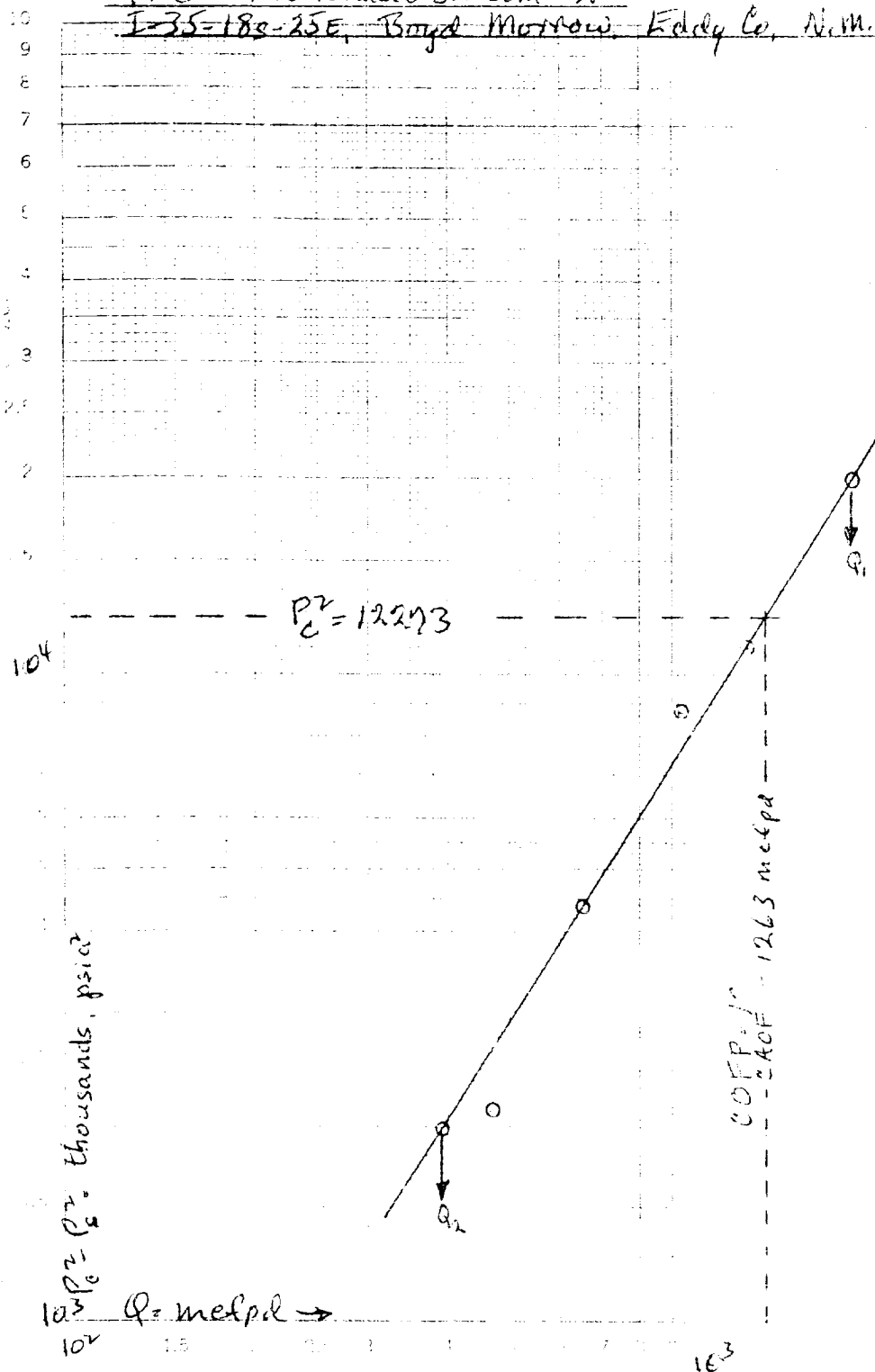
$ACF = 2 \left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1263$			
Absolute Open Flow <u>1263</u> Mc/d @ 15.025		Angle of Slope <u>57.3</u>	
		Slope, n <u>0.6411</u>	

Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT Calculations worksheet C122D attached.

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

YPC - Rio Penasco JX Core #2

I-35-188-25E, Boyd Morrow, Eddy Co., N.M.



$Q_1 = 1720 \text{ mcfpd}$
 $Q_2 = 393 \text{ mcfpd}$

$\log Q_1 = 3.2355$

$\log Q_2 = 2.5944$

$n = 0.6411$

LOCATION: Unit _____
 Section _____
 Township _____
 Range _____

[illegible][illegible]