

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 1-27-81		MAR 26 1981	
Company Yates Petroleum Corporation ✓				Connection Transwestern Pipeline Co.			
Pool No. Turkey Track <i>Morrow</i>				Formation Morrow		Unit ARTESIA, OCECE	
Completion Date 7-4-80		Total Depth 11500 KB		Plug Back TD 11220 KB		Elevation 3453 KB	
Form or Lease Name Dixon Yates LM Fed.							
Csq. Size 4 1/2"	Wt. 11.6#	d 4.000	Set At 11423 KB	Perforations: From 11130 To 11144		Well No. 1	
Thq. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 11108 KB	Perforations: From To		Unit Sec. Twp. Rge. G 28 18S 29E	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single				Packer Set At 11108-11111		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 174 • 11137		Mean Annual Temp. °F 62		Baro. Press. - P _g 13.2	
State New Mexico							
L 11130	H 11130	G _g 0.7145	% CO ₂ 2.70	% N ₂ 0.72	% H ₂ S N.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							2860	57			Weeks
1.	2.067 X 1.000			810	4	53	2230	66			16 hrs
2.	2.067 X 1.000			820	10	53	2064	70			24 hrs
3.	2.067 X 1.000			830	22	54	1720	73			24 hrs
4.	2.067 X 1.000			830	43	55	877	75			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, Mcfd
1	4.946	57.38	823.2	1.007	1.224	1.095	383
2	4.946	91.28	833.2	1.007	1.224	1.096	610
3	4.946	136.20	843.2	1.006	1.224	1.097	910
4	4.946	190.41	843.2	1.005	1.224	1.096	1270
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	54.26 Mcf/bbl.
1	1.211	513	1.364	.834	A.P.I. Gravity of Liquid Hydrocarbons	0.667 Deg.
2	1.225	513	1.364	.832	Specific Gravity Separator Gas	XXXXXXX 7145
3	1.240	514	1.367	.8315	Specific Gravity Flowing Fluid	XXXXX 888
4	1.240	515	1.370	.8328	Critical Pressure	680 P.S.I.A. 467 P.S.I.A.
5					Critical Temperature	376 R

P _c 43382	P _c ² 18820		
NO.	P ₁ ²	P _w	P _c ² - R _w ²
1			12180
2			10503
3			7310
4			1624
5			

$$(1) \frac{P_c^2}{R_c^2 - R_w^2} = 1.09444$$

$$AOF = Q \left[\frac{R_c^2}{R_c^2 - R_w^2} \right]^n = 1390$$

$$(2) \left[\frac{R_c^2}{R_c^2 - R_w^2} \right]^n = 1.09444$$

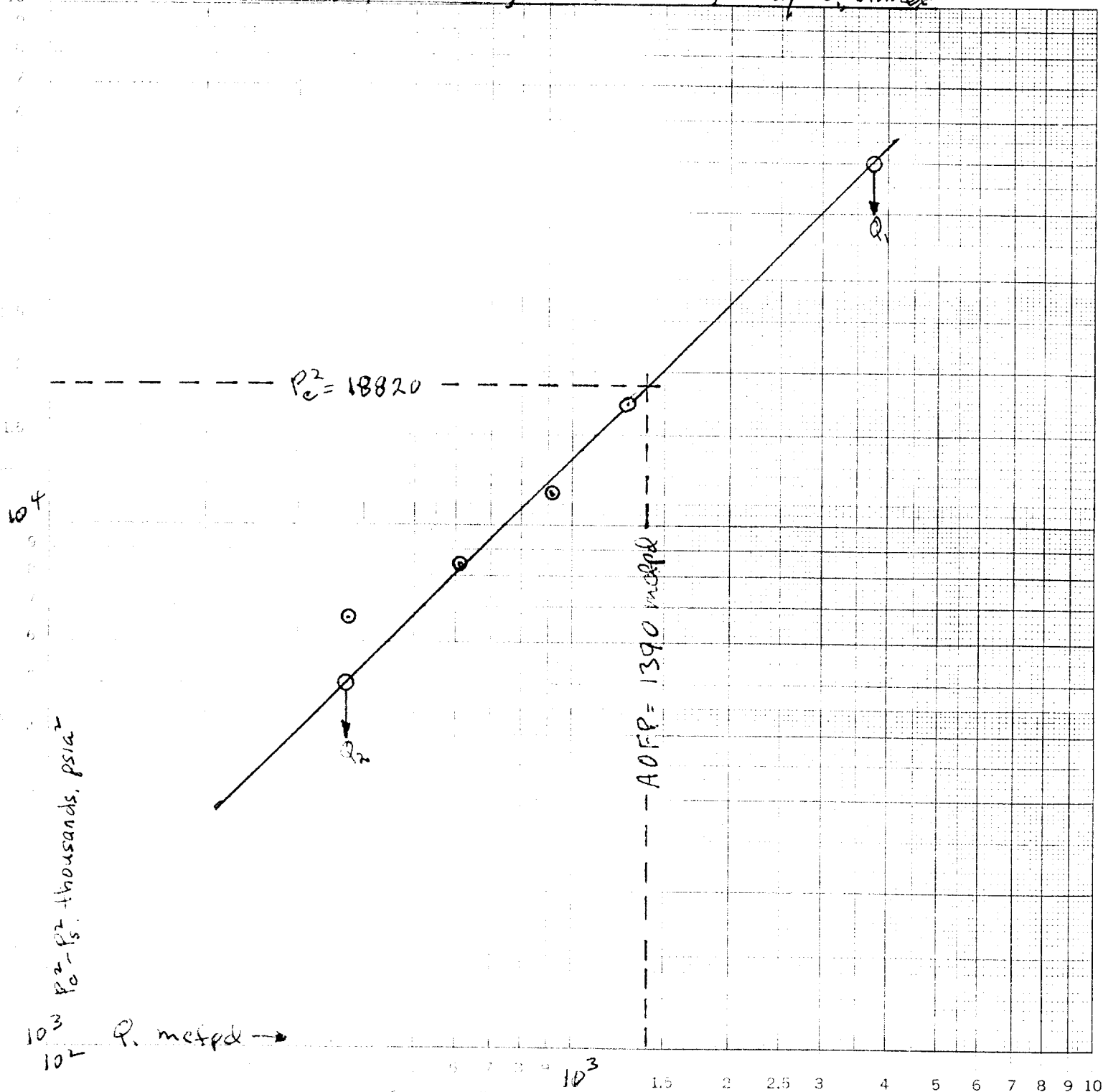
Absolute Open Flow	1390 Mcfd @ 15.025	Angle of Slope	45 deg.	Slope, n	1.000
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Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT. Calculations, worksheet C122D attached

Approved By Commission:	Conducted By: Bill Trembly Jr.	Calculated By: Eddie Mahfood	Checked By:
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YPC - Dixon Yates LM Fed No. 1

G 28-185-29 E, No. Turkey Track Morrow, Eddy Co., N. Mex



$$Q_1 = 3710 \text{ mcfpd}$$

$$Q_2 = 371 \text{ mcfpd}$$

$$\log Q_1 = 3.5694$$

$$\log Q_2 = 2.5694$$

$$n = 1.0000$$

WORKSHEET FOR CALCULATION OF ST. IC COLUMN WELLHEAD PRESSURE (P_{WH})

DATE 1-27-21
Adopted 9-1-23

COMPANY LEASE Section 26 Township 18N Range 26E DATE 1-27-21

LOCATION: Unit H L/H L/H G 1000 % CO₂ 5A % N₂ 100 % H₂S 1

d 1000 F₁ 1000 GH 1000 P_{cr} 1000 T_{cr} 1000

LINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1 Q _m																						
2 T _{wh} (B.H. PR)	517																					
3 T _{wh} (B.H. PR)																						
4 T _{wh} (B.H. PR)																						
5 T _{wh} (B.H. PR)																						
6 T _{wh} (B.H. PR)																						
7 T _{wh} (B.H. PR)																						
8 T _{wh} (B.H. PR)																						
9 T _{wh} (B.H. PR)																						
10 P ₁																						
11 P ₁ (Table XIV)																						
12 P ₁ (Table XIV)																						
13 P ₁ = P ₁ + T ₁																						
14 P ₁ = P ₁																						
15 P ₁ = P ₁ (P ₁ Q _m) ²																						
16 P ₁ = P ₁ (P ₁ Q _m) ² (1-e ⁻²)																						
17 P ₁ ² = P ₁ ² + F ₁																						
18 P ₁ ² = e ² P ₁ ²																						
19 P ₁																						
20 P ₁ = (P ₁ / P ₁)																						
21 P ₁ = (P ₁ / P ₁)																						
22 T ₁ = (T ₁ / T ₁)																						

0.6285 0.582 0.577 0.5785 0.770 0.7695 0.7695