

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 <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 3-26-81	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Co.	
Pool Penasco Draw Permo Penn		Formation Ciseo	
Completion Date 11-10-80		Total Depth 9190 KB	Plug Back TD 6685 KB
Casing Size 4 1/2" WI. 11.6#		Set At 4.000	Elevation 3721 KB
Flow Size 2 3/8" WI. 4.7#		Set At 1.995	Perforations: From 6548 To 6635
Type Well - Single - Bradenhead - C.C. or G.O. Multiple single		Packer Set At 6505 KB	Farm or Lease Name Irish Hills/State KW
Producing Thru Tubing		Reservoir Temp. °F 125 # 7626	Mean Annual Temp. °F 62
Baro. Press. - P <sub>g</sub> 13.2		Well No. 2 Com.	
Unit G 2		Sec. 19s	Twps. 24e
County Eddy		State New Mexico	
Meter Run 2"		Taps Flanged	

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	2.067	X	0.875	610	6	59	1768	73			Days
2.	2.067	X	0.875	505	12	48	1582	78			19 hrs
3.	2.067	X	0.875	388	20	50	1376	80			24
4.	2.067	X	0.875	450	30	60	1245	81			24
5.							763	82			24 ✓

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	4.946	61.15	623.2	1.001	1.245	1.0523	397
2	4.946	78.86	518.2	1.012	1.245	1.0556	519
3	4.946	89.58	401.2	1.010	1.245	1.0567	589
4	4.946	117.88	463.2	1.000	1.245	1.0523	764

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.773	519	1.402	.903	75.62	68.5	0.645	XXXXXX	671	370
2	.757	508	1.373	.8975						
3	.760	510	1.378	.8955						
4	.775	520	1.405	.903						

NO.	P <sub>1</sub> <sup>2</sup>	P <sub>w</sub> <sup>2</sup>	R <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - R <sub>w</sub> <sup>2</sup>
1			3762	978
2			2826	1914
3			2307	2433
4			864	3876

(1)  $\frac{P_c^2}{P_r^2 - R_w^2} = 1.2229$  (2)  $\left[ \frac{P_c^2}{P_r^2 - R_w^2} \right]^n = 1.1176$

AGF = Q  $\left[ \frac{P_c^2}{P_r^2 - R_w^2} \right]^n = 854$

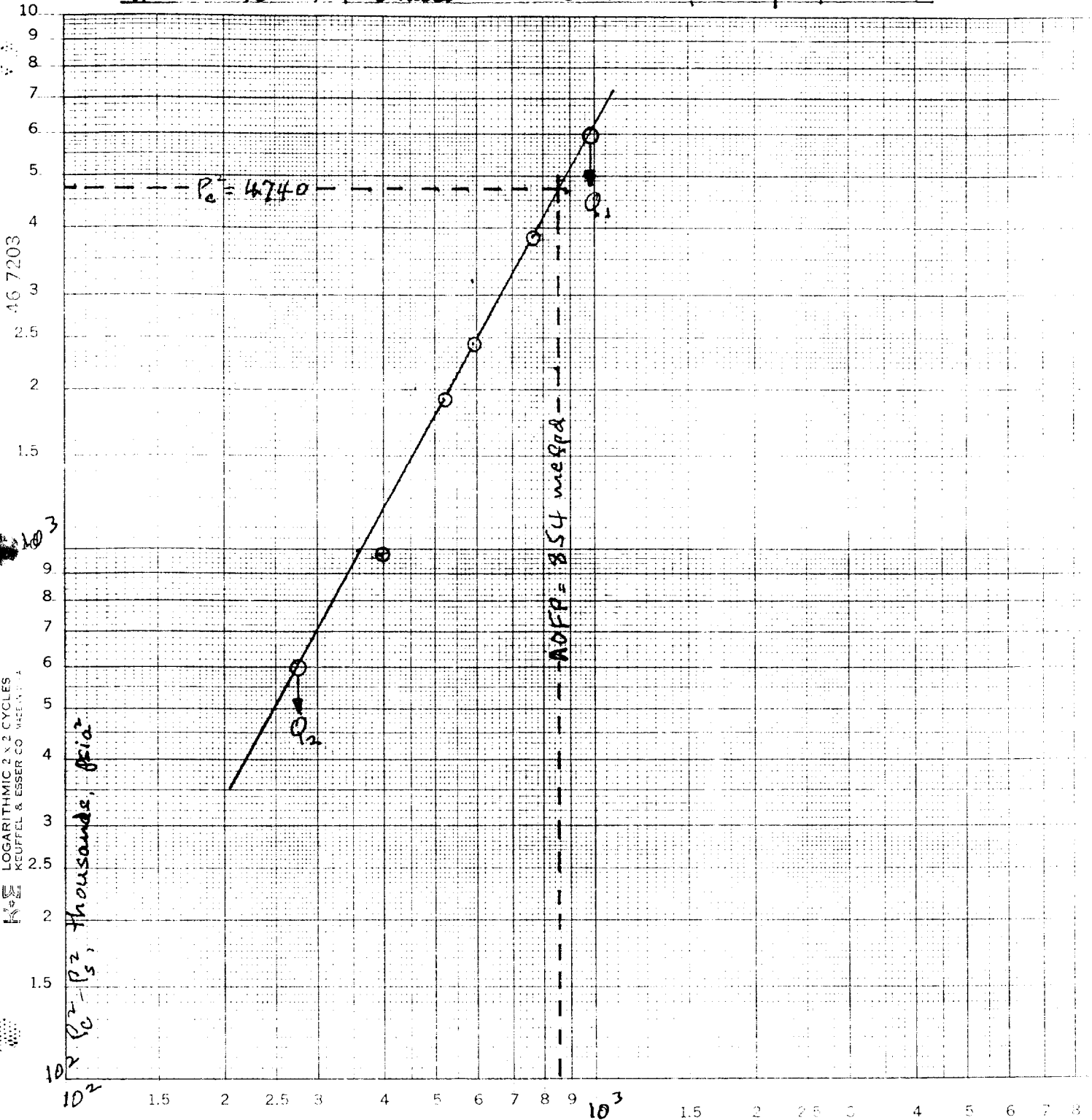
Absolute Open Flow 854 Mcfd @ 15.025 Angle of Slope 61-1 deg. Slope, n 0.5526

Remarks: Static pressures by Bennett Wireline, flowing pressures by dead weight tester. Calculations worksheet C-122D attached

Approved By Commission: \_\_\_\_\_ Conducted By: Danny Matthews Calculated By: Eddie Mahfood Checked By: \_\_\_\_\_

YPC - Irish Hills KW State Com. No. 2

G-2-19S-24E, Penasco Draw Permo Penn, Eddy Co. N. Mex



$Q_1 = 978 \text{ mcfpd}$   
 $Q_2 = 274 \text{ mcfpd}$

$\log Q_1 = 2.9903$   
 $\log Q_2 = 2.4377$   
 $n = 0.5526$

