

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-11-80		NOV 21 1980	
Company Harvey E. Yates Company				Connection			
Pool South Empire				Formation Morrow		Unit	
Completion Date 9-11-80		Total Depth 11100		Plug Back TD 11100		Elevation 3604.5 GL	
Farm or Lease Name Travis "13" State				Well No.			
Csg. Size 5 1/2	Wt. 17.0	d	Set At 11100	Perforations: From 11002 To 11010		Unit	
Tbg. Size 2 3/8	Wt.	d	Set At 10968	Perforations: From To		Sec. Twp. Rge. 13 18S 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10968		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 166 @ 10900'		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2	
L 11006		H 11006	G _g 0.611	% CO ₂ 0.50	% N ₂ 0.47	% H ₂ S Nil	Prover Meter Run X
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
SI	118.5 HOURS										
1.	*4" X 1.000"			5.7	4.1	75	2419	184	70	Pkr.	24 hrs. *
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{\frac{h_w P_m}{h_w \times P_m}}$	Pressure	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.753	23.37	1.581	0.9859	1.279	1.010	223.7
2.							
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					Nil	
2.					A.P.I. Gravity of Liquid Hydrocarbons	Deg.
3.					Specific Gravity Separator Gas	0.611
4.					Specific Gravity Flowing Fluid	X X X X X
5.					Critical Pressure	671 P.S.I.A.
					Critical Temperature	362 R

P _f 3925.2 P _f ² 15407				
NO.	P _t ²	P _s	P _s ²	P _f ² - P _s ²
1		850.2	723	14684
2				
3				
4				
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.049237$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 231.911$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.036705$$

Absolute Open Flow	231.911	Mcf/d @ 15.025	Angle of Slope °	53.13°	Slope, n	0.75
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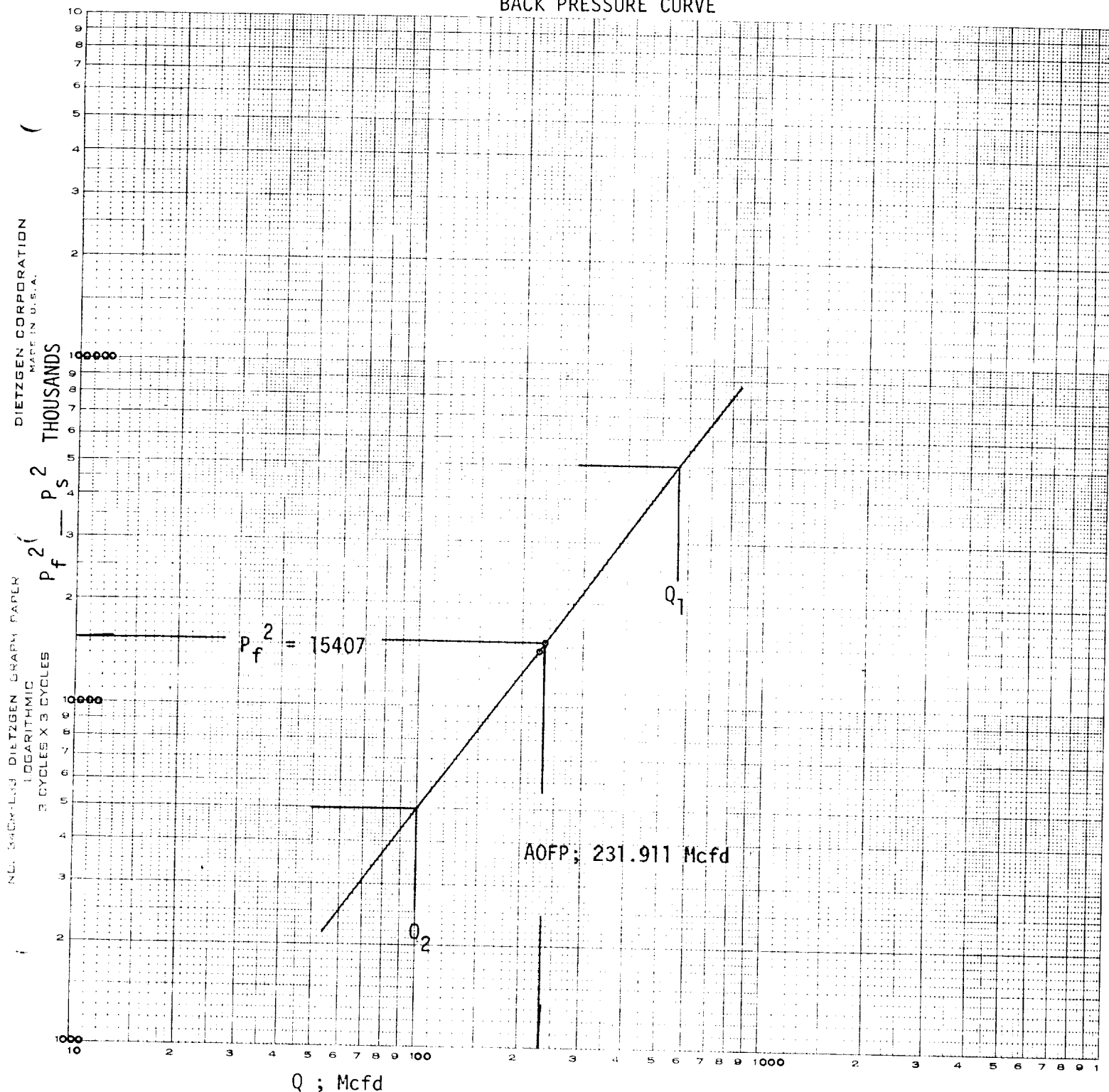
Remarks: BHP measured with Amerada RPG-3 Gauge No. 47617, 0-6000 P.S.I. Range
*Wellbore would load with water and would not produce against line pressure for normal multi-point test

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: D. A. Warren, Jr.	Checked By: <i>[Signature]</i>
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RECEIVED NOV 19 1980

Company : Harvey E. Yates Company
 Well : Travis " " State No. 1
 Field : South Empire
 County : Eddy
 State : New Mexico
 Date : November 11, 1980

BACK PRESSURE CURVE



$$Q_1 = 560.738 ; \text{LOG } Q_1 = 2.748760$$

$$Q_2 = 99.715 ; \text{LOG } Q_2 = 1.998760$$

$$n = 0.750000$$

$$\phi = 53.13^\circ$$