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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources

Form C-122
Revised October, 1999

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Fasken Oil and Ranch, Ltd. /					Lease or Unit Name El Paso Federal				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 10-30-01		Well No. 14		
Completion Date 8-31-01		Total Depth 11,006'		Plug Back TD 10,986'		Elevation 3201' GR		Unit Ltr - Sec. - TWP - Rge. A 3 21S 26E	
Csg. Size 5-1/2"	Wt. 17	d 4.892	Set At 11,003'	Perforations: From: 10,900' To: 10,935'				County Eddy	
Tbg. Size 2-7/8"	Wt. 6.5	d 2.441	Set At 10,881'	Perforations: From: To:				Pool Avalon	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 10,870'		Formation Morrow		
Producing Thru Tubing		Reservoir Temp. °F 175		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection El Paso Field Services	
L 10,881'	H 10,881'	Gg 0.594	%CO ₂ 0.90	%N ₂ 0.27	%H ₂ S 0.00	Prover Orifice	Meter Run 3"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration Of Flow	
No.	Prover Line Size	Orifice X 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						2304	80	0	80	-
1.	3.068" x 0.875"		430	7.17	80	430	80	0	80	24 hr
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 HOUR)	 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.	3.650	56.38	443.2	0.9813	1.298	1.072	281
2.							
3.							
4.							
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	1.51	540	1.54	0.870	A. P. I. Gravity of Liquid Hydrocarbons	Deg.
2.					Specific Gravity Separator Gas 0.594	XXXXXXXXXX
3.					Specific Gravity Flowing Fluid 0.594	XXXXXX
4.					Critical Pressure 671	P.S.I.A.
5.					Critical Temperature 351	R.

P _c 2317		P _c ² 5368.5	
No.	P _i ²	P _w	P _w ²
1.	196.4	444.3	197.4
2.			
3.			
4.			
5.			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{5368.5}{5171.1}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.038$

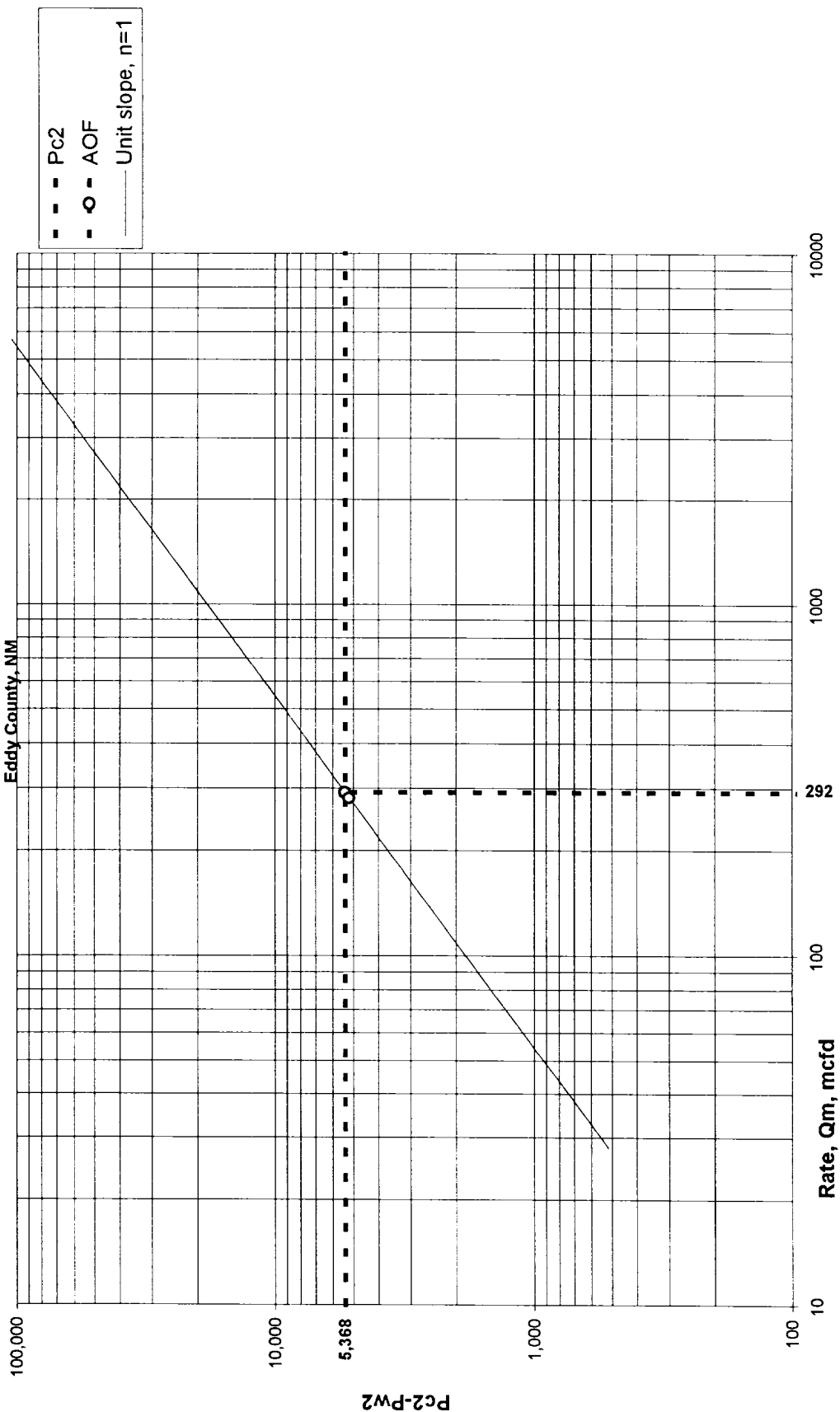
AOF = Q (281) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 292$

Absolute Open Flow	292	Mcf/d @ 15.025	Angle of Slope θ: 45	Slope, n: 1.00
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Remarks:
An approximation of AOF was made with unit slope through the maximum rate.

Approved By Division	Conducted By: Fasken Oil and Ranch, Ltd.	Calculated By: Carl Brown	Checked By:
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Fasken Oil and Ranch, Ltd.
 El Paso Federal No. 14
 Unit A, Sec 3, T21S, R26E
 Avalon (Morrow) Field
 Eddy County, NM



WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw)

C-122D

DATE: 10/30/2001

COMPANY Fasken Oil and Ranch, Ltd. LEASE El Paso Federal WELL NO. 14

LOCATION: Unit A Section 3 Township 21S Range 26E

L 10881 H 10881 L / H 1 G 0.594 %CO2 0.27 %N2 0.9 %H2S 0

d 2.441 Fr 0.010763 GH 6463.314 Pcr 671 Tcr 351

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.281				
2 Tw(W.H.DegR)	540				
3 Ts(B.H.DegR)	635				
4 $T = (Tw + Ts) / 2$	587.5				
5 Z (Est.)	0.950				
6 TZ	558.1				
7 GH / TZ	11.580				
8 e ^s (Table XIV)	1.544				
9 1-e ^s (Table XIV)	0.352				
10 Pt	443.2				
11 $Pt^2 / 1000$	196.4				
12 Fr (Table XV)	0.010763				
13 Fc = FrTZ	6.007				
14 FcQm	1.688				
15 $L / H(FcQm)^2$	2.849				
16 $Fw = L / H(FcQm)^2(1-e^s)$	1.004				
17 $Pw^2 = Pt^2 + Fw$	197.4				
18 $Ps^2 = e^s Pw^2$	304.8				
19 Ps	552.1				
20 $P = (Pt + Ps) / 2$	497.6				
21 Pr = (P / Pcr)	0.742				
22 Tr = (T / Tcr)	1.674				
23 Z (Table XI)	0.950				