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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION
2040 Pacheco St.
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 8-27-98		Well No. 9			
Completion Date 7-23-98		Total Depth 10997		Plug Back TD 10997		Elevation 3186' GR		Unit Ltr. - Sec. - TWP - Rge. Lot 34 2 21S 26E			
Csg. Size 5½"	Wt. 20	d 4.778	Set At 10957'	Perforations: From: 10957' To: 10997'				County Eddy			
Tbg. Size 2-7/8"	Wt. 6.5	d 2.441	Set At 10884'	Perforations: From: 10957' To: 10997'				Pool Avalon			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10884'		Formation Morrow			
Producing Thru Tubing		Reservoir Temp. °F 184		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection			
L 10884'	H 10884'	Gg .594	% CO ₂ 0.9	% N ₂ 0.27	% H ₂ S 0	Prover Elec. Flowmeter		Meter Run 4"	Taps Flange		

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	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	Shut in		--		--	3267	80	1150	-	0
1.	4 x 2.25		420	2.5	98	2460	80	1150	-	1
2.	4 x 2.25		420	7.8	96	2160	80	1150	-	1
3.	4 x 2.25		420	18.8	94	1500	80	1150	-	1
4.	4 x 2.25		420	31.5	92	940	80	1150	-	1
5.	4 x 2.25		420	40.1	90	550	80	1150	-	2

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1.	25.64	33.16	433.2	.9653	1.296	1.129	1201
2.	25.64	58.00	433.2	.9671	1.296	1.125	2097
3.	25.64	90.33	433.2	.9680	1.296	1.101	3199
4.	25.64	116.86	433.2	.9706	1.296	1.069	4029
5.	25.64	131.80	433.2	.9723	1.296	1.041	4433

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	3.66	558	1.57	.785	131	
2.	3.21	556	1.57	.790	55	
3.	2.24	554	1.56	.825		
4.	1.41	552	1.55	.875		
5.	.83	550	1.53	.922		

A.P.L. Gravity of Liquid Hydrocarbons		55		Deg.	
Specific Gravity Separator Gas		.594		XXXXXXXXXX	
Specific Gravity Flowing Fluid		XXXXXX		618	
Critical Pressure		676		P.S.I.A. 675 P.S.I.A.	
Critical Temperature		354		R 364 R	

P _c 3280.2		P _c ² 10760	
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NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.	6117		6133	4627
2.	4723		4772	5988
3.	2290		2408	8352
4.	909		1106	9652
5.	317		568	10192

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.056$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4680$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.056$

Absolute Open Flow	4680	Mcf/d @ 15.025	Angle of Slope θ	45	Slope, n	1.0
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Remarks: Constant time multipoint test resulted in slope, 'n' > 1.0.

Approved By Division	Conducted By: Jimmy Davis, Jr.	Calculated By: Carl Brown	Checked By:
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