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See Rule 401 & Rule 1122

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 1-27-99		Well No. 11			
Completion Date 1-26-99		Total Depth 11,254'		Plug Back TD 11,200'		Elevation 3192'		Unit Ltr. - Sec. - TWP - Rge. 0 1 21S 26E			
Csg. Size 4 1/2"	Wt. 13.5	d 3.920	Set At 11,250	Perforations: From: 9929' To: 9935'				County Eddy			
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 9743'	Perforations: From: 9946' To: 9958'				Pool Burton Flat West			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9743'		Formation Strawn			
Producing Thru Tubing		Reservoir Temp. °F 184		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection El Paso Natural Gas			
L 9743	H 9743	Gg 0.67	% CO ₂ 1.134	% N ₂ 0.845	% H ₂ S 0.0	Prover Orifice		Meter Run 3"		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.	
SI									
1.	3" x 1.000		360	1.8	67	2643	67	0	60
2.	3" x 1.000		360	3.5	82	2611	82	0	65
3.	3" x 1.000		370	7.0	82	2321	82	0	65
4.	3" x 1.000		385	15	79	2075	79	0	65
5.									

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\frac{h_w P_m}{P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv} .	Rate of Flow Q, Mcfd
1.	4.789	25.92	373.2	0.993	1.222	1.037	156
2.	4.789	36.14	373.2	0.979	1.222	1.036	215
3.	4.789	51.79	383.2	0.979	1.222	1.035	307
4.	4.789	77.29	398.2	0.982	1.222	1.036	460
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	33 Mcf/bbl.
1.	0.56	527	1.394	0.930	A.P. L Gravity of Liquid Hydrocarbons	53 Deg.
2.	0.56	542	1.434	0.932	Specific Gravity Separator Gas	0.67
3.	0.57	542	1.434	0.933	Specific Gravity Flowing Fluid	XXXXXX
4.	0.59	539	1.426	0.932	Critical Pressure	672 P.S.I.A.
5.					Critical Temperature	378 R

P _c 3663.2		P _c ² 13,419	
NO.	P _t ²	P _w	P _w ²
1.	7055.4	2656	7057.3
2.	6886.4	2625	6890.0
3.	5448.5	2336	5455.7
4.	4360.6	2092	4376.6
5.			

1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{13419}{9800}$

AOF = Q 500 $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = 685$

(2) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{13419}{9800} = 1.369$

Absolute Open Flow	685	Mcf @ 15.025	Angle of Slope θ	45°
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Remarks: Constant multipoint test resulted in slope "n" greater than 1.0

Approved By Division	Conducted By:	Calculated By:	Checked By:
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