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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

015F

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 10-18-99		Well No. 12			
Completion Date 10-4-99		Total Depth 4603'		Plug Back TD 4557'		Elevation 3192'		Unit Ltr. - Sec. - TWP - Rge. Lot 31 1 21S 26E			
Csg. Size 15 1/2"	Wt. 15.5	d 4.950"	Set At 4602'	Perforations: From: 3115 To: 3242'				County Eddy			
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995"	Set At 3080'	Perforations: From: To:				Pool <i>Foster Draw Del.</i> Burton Flat West			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At None		Formation Delaware			
Producing Thru Tubing		Reservoir Temp. °F 88		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection El Paso Natural			
L 3080'	H 3080'	Gg 0.680	% CO ₂ 0.025	% N ₂ 6.255	% H ₂ S 0.0	Prover		Meter Run 4"		Taps Flange	

FLOW DATA					TUBING DATA		BHP 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						1310	70	1442	88	72.0
1.	4.0 x 0.5		390	8.8	70	1240	70	1364	88	1.0
2.	4.0 x 0.5		390	22.1	70	1160	70	1294	88	1.0
3.	4.0 x 0.5		390	45.3	70	1060	70	1190	87	1.0
4.	4.0 x 0.5		390	67.1	70	950	70	1022	87	1.0
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv} .	Rate of Flow Q, Mcfd
1.	1.182	59.57	403.2	0.9905	1.213	1.006	85
2.	1.182	94.40	403.2	0.9905	1.213	1.006	135
3.	1.182	135.15	403.2	0.9905	1.213	1.006	193
4.	1.182	164.48	403.2	0.9905	1.213	1.006	235
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.	
1.	0.613	530	1.44	0.928	A.P. L Gravity of Liquid Hydrocarbons _____ Deg.	
2.	0.613	530	1.44	0.928	Specific Gravity Separator Gas 0.680 XXXXXXXXXXXX	
3.	0.613	530	1.44	0.928	Specific Gravity Flowing Fluid XXXXXX	
4.	0.613	530	1.44	0.928	Critical Pressure 658 P.S.I.A. P.S.I.A.	
5.					Critical Temperature 368 R R	

P _c 1453.2 P _c ² 2111.8	
NO.	P _i ² P _w ² P _w ² P _c ² - P _w ²
1.	1377.2 1896.7 215.1
2.	1307.2 1708.8 403.0
3.	1203.2 1447.9 663.9
4.	1035.2 1071.6 1040.2
5.	

1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2111.8}{663.9}$

AOF = Q₁₉₃ $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 450$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.330$

Absolute Open Flow	450	Mcf/d @ 15.025	Angle of Slope θ	54°	Slope, n	0.731
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Remarks: Bottom hole shut in and flowing pressures measured with electronic pressure gauge at mid-perf
datum 3178'

Approved By Division	Conducted By: Fasken Oil and Ranch, Ltd.	Calculated By: Carl Brown	Checked By:
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