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appropriate district office
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

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Mewbourne Oil Company						Lease or Unit Name Federal N					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-11-94		Well No. 1			
Completion Date 2-3-94		Total Depth 11,500		Plug Back TD 10,910		Elevation 3595' GL		Unit Ltr. - Sec. - TWP - Rge. M 6-22s-26e			
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 11,500	Perforations: From: 10,264 To: 10,272				County Eddy			
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 10,142	Perforations: From: Open To: Ended				Pool Hackberry Hills			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,142				Formation Atoka			
Producing Thru Tubing		Reservoir Temp. °F 173 @ 10268		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2				Connection El Paso	
L 10268	H 10268	G _g .629	% CO ₂ .56	% N ₂ 1.02	% H ₂ S -	Prover -		Meter Run 4.026		Taps FLG	

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							1240		PKR		87 Hrs.
1.	4	x	1.000	36	4.00	64	1000		"		1 Hr.
2.	4	x	1.000	36	8.41	70	650		"		1 Hr.
3.	4	x	1.000	34	12.25	75	340		"		1 Hr.
4.	4	x	1.000	17	37.21	75	110		"		1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.753	14.03	49.2	.9962	1.261	1.004	84
2.	4.753	20.34	49.2	.9905	1.261	1.004	121
3.	4.753	24.05	47.2	.9859	1.261	1.004	143
4.	4.753	33.52	30.2	.9859	1.261	1.003	199
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.07	524	1.44	.992	A.P. I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	.07	530	1.46	.993	Specific Gravity Separator Gas	.629	XXXXXXXXXX
3.	.07	535	1.47	.993	Specific Gravity Flowing Fluid	XXXXXX	
4.	.04	535	1.47	.994	Critical Pressure * 670	P.S.I.A.	P.S.I.A.
5.					Critical Temperature * 362	R	R

P_c 1626.2 P_c² 2644.5

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		1390.5	1933.5	711.0
2.		1110.6	1233.4	1411.1
3.		828.8	686.9	1957.6
4.		591.9	350.3	2294.2
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.153$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .229$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.153$

Absolute Open Flow	229	Mcf @ 15.025	Angle of Slope θ	45	Slope, n	1.000
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Remarks: ** BHP Instrument Set @ This Depth

* Corrected to 1.00% N₂

Approved By Division	Conducted By: Mewbourne Oil Company	Calculated By: Bob Murray	Checked By: Bob Murray
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