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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

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Form C-122
Revised 4-1-91

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File

OIL CONSERVATION DIVISION

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

O. C. D.
OFFICE OF CONSERVATION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SANTA FE ENERGY					Lease or Unit Name P. G. - 4 FED				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 6-29-92		Well No. 1		
Completion Date 6-24-92		Total Depth 14100		Plug Back TD 14050		Elevation			
Csg. Size 4 1/2		Wt. 14100		Set At 14100		Perforations: From: 13718 To: 13748		Unit Ltr. - Sec. - TWP - Rge. 9 23 31	
Tbg. Size 2 3/8		Wt. 4.7		Set At 13610		Perforations: From: To:		County Eddy	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single					Packer Set At 13610		Formation ATOKA		
Producing thru TBG		Reservoir Temp. °F 211 @ 13733		Mean Annual Temp. °F 60		Baro. Press - P. 13.2		Connecction	
L *13733	H 13733	Gg .592	% CO ₂ .89	% N ₂ .83	% H ₂ S	Prover	Meter Run 3.068	Taps FLG	

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						2940		PKR.		72 hr.
1.	3 X 1.500		760	3.00	90	2840		"		1 hr.
2.	3 X 1.500		740	11.00	60	2620		"		1 hr.
3.	3 X 1.500		760	21.00	64	2200		"		1 hr.
4.	3 X 1.500		760	32.00	64	1980		"		1 hr.
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$h_w P_m$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	11.13	48.16	773.2	.9723	1.300	1.061	719
2.	11.13	91.02	753.2	1.000	1.300	1.068	1,407
3.	11.13	127.43	773.2	.9962	1.300	1.070	1,965
4.	11.13	157.30	773.2	.9962	1.300	1.070	2,426
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	1.15	550	1.55	.889	A.P. I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	1.12	520	1.46	.877	Specific Gravity Separator Gas	.592	XXXXXXXXXX
3.	1.15	524	1.48	.874	Specific Gravity Flowing Fluid	XXXXX	
4.	1.15	524	1.48	.874	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	354	R

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.		2867.7	8223.7	517.2
2.		2741.2	7514.2	1226.7
3.		2581.8	6665.7	2075.2
4.		2382.9	5678.2	3062.7
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.212$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.871$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.642$

Absolute Open Flow 5,642 Mcfd @ 15.025		Angle of Slope θ 54	Slope, n .7335
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Remarks: **Well Made 1.30 BBLs H₂O During Test**

* = BHP Instrumnet set @ this Depth.

Approved By Division	Conducted By: PRO WELL TESTERS	Calculated By: BM	Checked By: BM
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