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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

clsf
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator FINA OIL & CHEMICAL						Lease or Unit Name MUSKEGON 16 ST. COM					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-9-93		Well No. 1			
Completion Date 12-30-92		Total Depth 10915		Plug Back TD 10876		Elevation		Unit Lr. - Sec. - TWP - Rge. N 16-12-29			
Csg. Size 5 1/2	Wt. 17	d	Set At 10915	Perforations: From: 10645 To: 10812		County Eddy		Pool S. Empire Morrow			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10479	Perforations: From: To:		Formation Morrow		Connection vented			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At 10479							
Producing Thru tbg		Reservoir Temp. °F		Mean Annual Temp. °F 60		Baro. Press - P _s 13.2					
L **10645	H 10645	Gg .682	% CO ₂ 1.23	% N ₂ .69	% 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						3200		PKR		72 hr.
1.	3 X 1.500		420	6.00	76	2690		"		1 hr.
2.	3 X 1.500		450	12.00	81	2220		"		1 hr.
3.	3 X 1.500		450	23.00	79	1870		"		1 hr.
4.	3 X 1.500		450	30.00	79	1480		"		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 Fg.	Super Compress. Factor, F _{pv} .	Rate of Flow Q, Mcfd
1.	11.13	50.98	433.2	.9850	1.211	1.044	707
2.	11.13	74.56	463.2	.9804	1.211	1.047	1032
3.	11.13	103.22	463.2	.9822	1.211	1.047	1431
4.	11.13	117.88	463.2	.9822	1.211	1.047	1634
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 7.61 Mcf/bbl.
1.	.64	536	1.39	.918	A.P.I. Gravity of Liquid Hydrocarbons 46.3 @60° Deg.
2.	.68	541	1.40	.913	Specific Gravity Separator Gas .682 XXXXXXXXXX
3.	.68	539	1.40	.913	Specific Gravity Flowing Fluid XXXXXX GMIX=.701
4.	.68	539	1.40	.913	Critical Pressure *673 P.S.I.A. *672 P.S.I.A.
5.					Critical Temperature *384 R *391 R

P_c **3213.2** P_c² **10324.7**

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	$1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.288$ $2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.288$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.105$
1.		2706.04	7322.7	3002.0	
2.		2240.22	5018.6	5306.1	
3.		1899.15	3606.8	6717.9	
4.		1520.03	2310.5	8014.2	
5.					

Absolute Open Flow 2,105 Mcfd @ 15.025	Angle of Slope θ 45	Slope, n 1.000
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Remarks: Well produced 34.00 BBLS of 46.3 API GR. Oil during test.
 * Corrected to 1.23 % Co₂
 ** Equivlent length on 166 ft. 5 1/2 17# csg to top of perfs.

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