

NE' EXICO OIL CONSERVATION COMSSS
MULTIPOINT AND ONE POINT BACK PRESSURE TEST, OR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 05/02/74	
Company Atlantic Richfield				Connection None		
Pool Jalmat				Formation Yates		Unit
Completion Date 04/21/74		Total Depth 3710		Plug Back TD 3695	Elevation 3561	
Farm or Lease Name McDonald State WN						Well No. 23
Csg. Size 4.5	Wt. 9.5	d 4.090	Set At 3710	Perforations: From 3320 To 3667		Unit Sec. Twp. Rge. C 15 22-S 36E
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 3254	Perforations: From Open To Ended		County Lea
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 3254		State New Mexico
Producing Thru Tbg		Reservoir Temp. °F @ 88	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2		
L 3254	H 3254	Gg 0.692	% CO ₂ -0-	% N ₂ -0-	% H ₂ S -0-	Prover 2"
					Meter Run Critical Flow	Taps Prover

FLCW 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						70	258	70	Pkr		72 hr.
1.	2 x .250			247	---	78	247	78			1 hr.
2.	2 x .375			204	---	76	204	76			1 hr.
3.	2 x .375			238	---	74	238	74			1 hr.
4.	2 x .500			158	---	70	158	70			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, Fpv	Rate of Flow Q, Mcfd
1	1.087	---	260.2	0.9831	1.202	1.027	343.2
2	2.378	---	217.2	0.9850	1.202	1.022	625.0
3	2.378	---	251.2	0.9868	1.202	1.027	727.7
4	4.279	---	171.2	0.9905	1.202	1.019	888.7
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.39	538	1.39	0.949	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2	0.32	536	1.38	0.957	Specific Gravity Separator Gas	0.692
3	0.38	534	1.38	0.949	Specific Gravity Flowing Fluid	X X X X X X X X
4	0.26	530	1.37	0.964	Critical Pressure	669 P.S.I.A.
5					Critical Temperature	388 R

P _c 271.2	P _c ² 73.5				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	
1	67.7		69.3	4.2	
2	47.2		52.5	21.0	
3	40.1		47.3	26.2	
4	29.3		40.1	33.4	
5					

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.201$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1,603$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.804$$

Absolute Open Flow	1,603 Mcfd @ 15.025	Angle of Slope °	53	Slope, n	0.748
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Remarks: **Well tested with 2" Critical Flow Prover**

Approved By Commission: 	Conducted By: R. Erwin	Calculated By: R. Erwin	Checked By: L. C. Hudry
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