

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial FOUR POINT ☐ Annual ☐ Special		Test Date 12-17-81		330 FNL DEC 28 1981	
Company MC CLELLAN OIL CORP.		Connection AIR NEW WELL		2310 FNL G. C. D.	
Pool UNDESIGNATED		Formation ABO		Unit C	
Completion Date 12-14-81		Total Depth 4490 4492	Plug Back TD 4450 4459	Elevation 3672 KB	Farm or Lease Name MC CREA FEE
Coq. Size 4.50	Wt. 10.5	d 4.052	Set At 4490 4450	Perforations: From 4240 To 4351	Well No. 1
Tq. Size 2.375	Wt. 4.7	d 1.995	Set At 4216	Perforations: From OPEN To ENDED	Unit Sec. Twp. Rye. C 1 10S 25E
Type Well - Single - Brdenhead - C.G. or G.O. Multiple SINGLE				Packer Set At NONE	County CHAVES
Producing thru TUBING		Reservoir Temp. °F 96 # 4211	Mean Annual Temp. °F 60°	Baro. Press. - P _g 13.2	State NEW MEXICO
L 4295	H 4295	G _g .819	% CO ₂ 19.41	% N ₂ 4.82	% H ₂ S Prover Meter Run 4" Taps FLANGE

FLOW DATA						TUBING DATA		CASING DATA		Duration	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	B.H.P. PSIG	Temp. °F	of Flow
SI							968		1127		72 HRS.
1.	4.000	X	.500	400	60.0	62	937	42	1105		1
2.	4.000	X	1.000	410	6.0	88	915	46	1073		1
3.	4.000	X	1.000	410	20.0	97	890	40	1041		1
4.	4.000	X	1.000	420	61	100	861	38	988		1
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	1.2120	157.45	413.2	.9981	1.1050	1.0414	219
2	4.8740	49.79	423.2	.9741	1.1050	1.0353	274
3	4.8740	92.00	423.2	.9662	1.1050	1.0336	495
4	4.8740	162.56	433.2	.9636	1.1050	1.0347	873
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Mcf/hbl.
1	.56	522	1.37	.922	A.P.I. Gravity of Liquid Hydrocarbons	Deq.
2	.56	548	1.43	.933	Specific Gravity Separator Gas	.8190
3	.57	557	1.46	.936	Specific Gravity Flowing Fluid	X X X X X X X X
4	.59	560	1.46	.934	Critical Pressure	740 P.S.I.A.
5					Critical Temperature	382 R

NO.	P _i	P _w	P _w ²	P _i ² - P _w ²
1		1118.2	1250.4	50.0
2		1086.2	1179.8	120.0
3		1054.2	1111.3	189.0
4		1001.2	1002.4	298.0
5				

$P_c = 1140.2$ $P_c^2 = 1300.1$
 (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.3626$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.3626$
 $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3,808.6$

Absolute Open Flow	3,808.6	Mcf/d @ 15.025	Angle of Slope θ	45	Slope, n	1.000
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Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE GUAGES

Approved By Division	Conducted By:	Calculated By:	Checked By:
	RICHARD TOWNLEY	BENNETT & CATHEY	