

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-127
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11/7/78		NOV 13 1978	
Company DORCHESTER EXPLORATION, Inc.				Connection AIR		O.C.C. ARTESIA, OFFICE			
Pool SOUTH CARLSBAD Morrow				Formation MORROW		Unit N			
Completion Date 10/10/78		Total Depth 12007		Plug Back TD 11960		Elevation 3279 GL		Farm or Lease Name GRAHAM STATE Comm.	
Csg. Size 5 1/2	Wt. n/20	d	Set At 12007	Perforations: From 11456 To 11610		Well No. # 1			
Tbg. Size 2 3/8	Wt. n/80	d	Set At 11422	Perforations: From To		Unit N		Soc. 35	Twp. 23
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 11418		County EDDY	
Producing Thru TBG.		Reservoir Temp. °F 180 ° PERFS.		Mean Annual Temp. °F 60 °		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 11418	H 11418	Gg .574	% CO ₂ 1.19	% N ₂ .84	% H ₂ S	Prover	Meter Run 4"	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							2488				72 HRS.
1.	4	X	1.250	510	2.5	95	2325				1 HR.
2.	4	X	1.250	510	5.5	86	2195				1 HR.
3.	4	X	1.250	510	11.0	87	1990				1 HR.
4.	4	X	1.250	510	21.0	82	1530				1 HR.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.469	36.17	523.2	.9680	1.320	1.031	356
2	7.469	53.64	523.2	.9759	1.320	1.034	534
3	7.469	75.86	523.2	.9750	1.320	1.034	754
4	7.469	104.82	523.2	.9795	1.320	1.034	1047
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio DRY Mcf/bbl.
1.	.78	555	1.60	.940	A.P.I. Gravity of Liquid Hydrocarbons Deq.
2.	.78	546	1.58	.936	Specific Gravity Separator Gas .574 X X X X X X X X
3.	.78	547	1.58	.936	Specific Gravity Flowing Fluid X X X X X
4.	.78	542	1.57	.935	Critical Pressure 672 P.S.I.A. P.S.I.A.
5.					Critical Temperature 346 R R

NO.	P _t	P _w	P _w ²	P _c ² - P _w ²
1		2339.9	5475.1	780.9
2		2211.0	4888.5	1367.5
3		2008.3	4033.3	2222.7
4		1555.0	2418.0	3838.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.630$

ADP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.438$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.374$

Partial
ADP-2 + 6000
11-17-78
SI

Absolute Open Flow 1.438 Mcfd @ 15.025	Angle of Slope @ 57°	Slope, n .650
--	----------------------	---------------

Remarks:

Approved by Commission:

Conducted By: *Archie D. Quinn*

Calculated By: *Archie D. Quinn*

Checked By: