

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 6-1-65

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Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1/29/79		FEB 22 1979	
Company Maddox Energy Corporation ✓			Connection El Paso Natural Gas		
Field <i>S. Culebra Bluff</i> Undesignated			Formation Upper Atoka		
Completion Date 1/6/79		Total Depth 13117'		Flag Back TD 11885'	
Elevation 3051' KB		Perm or Lease Name Pardue Farms 26		Well No. 1	
4 1/2"	Wt. 26.0	d 6.276	Perforations: 10104-12290		
4 1/2"	13.5	d 3.920	12004-13117		
2 3/8"	4.70	d 1.995	Set At 11335'		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple			Packer Set At 11322		County Eddy
Predicting Time		Reservoir Temp. °F 60°		State New Mexico	
Tubing 11471		Gg 0.6219		Meter Run 6"	
H -		% CO ₂ 0.602		Flange	
Gg 0.608		Prover		Flange	

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
1.	4		2.500	554	2.89	52	5780		PACKER		23 Days
2.	4		2.500	564	18.49	58	5597				1.00
3.	4		2.500	580	37.21	54	4965				1.00
4.	4		2.500	580	65.61	46	4358				0.30
5.							3215				1.00

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 _{sp}	Rate of Flow Q, Mscf/d
1	30.31	40.49	567.2	1.008	1.268	1.055	1654.88
2	30.31	103.29	577.2	1.002	1.268	1.055	4196.47
3	30.31	148.60	593.2	1.006	1.268	1.058	6078.66
4	30.31	197.32	593.2	1.014	1.268	1.061	8158.86
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid-Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.84	512	1.42	0.899	44.15	56	0.6219	XXXXXX	674	361
2	0.86	518	1.43	0.899						
3	0.88	514	1.42	0.894						
4	0.88	506	1.40	0.889						
5										

P ₁ 7431.2 P ₂ 55222.7			
NO.	P _w	P _w ²	P _w ² - P _w ²
1	6944.2	48221.9	7000.8
2	6222.2	38715.8	16506.9
3	5390.2	29054.3	26168.4
4	4150.2	17224.2	37998.5
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.453$		$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.366$	
ADP = C $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 11145$			

Actual Flow	11145	Mscf @ 14.65	Angle of Slope	50° 10'	Slope, n	0.834
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Remarks: * BOTTOM HOLE PRESSURE @ (-8420) 11471' USED FOR PRESSURE CALCULATIONS	
PRODUCED 16.6 BD DURING TEST	

Approved by Commission:	Conducted By: JARREL SERVICES, INC.	Calculated By: Joe A. Coleman	Checked By: Joe A. Coleman
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