

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
10-1-66

Form O-122
Revised 4-1-65

Type Test ☒ Initial ☐ Annual		Date Sep 8 11 10 AM '66 8/27/66	
Operator Jake L. Hamon		None	
Well Name North Osado Marrow		Marrow	
Test Date 8/25/66		11,578	
Casing Size 7"		5N OD 18 1/2" Liner 11012 to 11578	
Well No. 1		Amerada Federal	
Perforations From 11,358	To 11,398		
Perforations From open ended to			
Unit N	Sec. 17	Twp. 20S	Rge. 36E
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single		Facker Set At 10,998 & 10,999	
Producing Thr. Tubing		State New Mexico	
Reservoir Temp. °F 150 & 11,530		Mean Annual Temp. °F 600	
Hardness % 13.2			
L 10,999	H 10,999	Gg .609	% CO ₂ 0.48
		% N ₂ 0.00	% H ₂ S 0.0
Prove		Meter Run X	
		Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO	Prove Line Size	X	Orifice Size	Press. psia/g.	Diff. in. H ₂ O	Temp. °F	Press. psia/g.	Temp. °F	Press. psia/g.	Temp. °F	
SI							2012	97	Per	Choke:	34
1.	4		2.25	432	9.2	74	479.5	84		11/64	1
2.	4		2.25	530	21	72	479	84		13/64	1
3.	4		2.25	650	37	67	420	84		16/64	1
4.	4		2.25	730	61	62	393	84		20/64	1
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp Factor Ft	Gravity Factor G	Super Compress Factor, F _{sc}	Rate of Flow Q, Mscf/d
1	25.64	67.50	495.2	.9868	1.281	1.040	2275
2	25.64	116.2	643.2	.9877	1.281	1.052	3966
3	25.64	157.3	872.2	.9933	1.281	1.058	5147
4	25.64	212.9	1132	.9981	1.281	1.065	7432
5							

NO.	F _r	Temp °R	T _r	Z	Gas Liquid Hydrocarbon Rat.	API Gravity of Gas	Specific Gravity of Gas	Specific Gravity of Gas	Critical Pressure	Critical Temperature
1	.738	534	1.49	.924	10.42	50.0	.779	.779	672	238
2	.959	532	1.49	.903						
3	1.00	527	1.47	.894						
4	1.11	522	1.46	.881						
5										

P ₀ 5024.2		P ₀ ² 25242.6		$\frac{P_0^2}{P_0^2 - P_w^2} = 3.761$		$\left[\frac{P_0^2}{P_0^2 - P_w^2} \right]^n = 3.205$	
NO	P _w	P _w ²	P ₀ ² - P _w ²				
1	2311.9	5344.6	23447.1	1802			
2	2108.8	4447.3	21795.3	3272			
3	1895.0	3581.0	20595.5	4648			
4	1562.0	2438.2	18534.4	6712			
5							

Actual per Flow	23,822	Mscf/d	Angle of Slope	879
Remarks:				
Approved By Commission:				
Conducted By:		Calculated By:		Checked By:
J. K. Smith		J. K. Smith		