

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

Form C-122
Revised 9-1-65

*copy to 31
1122 file*

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-18-76	
Company Morris R. Antweil				Connection El Paso Natural Gas Company			
Pool <i>Controlled Morrow</i>				Formation Morrow		Unit G	
Completion Date 10-18-76		Total Depth 11782		Plug Back TD 11690		Elevation 3128 <i>gn</i>	
Csg. Size 5 1/2		Wt. 17		Set At 11781		Perforations: From 11360 To 11438	
Fig. Size 2 3/8		Wt. 4.7		Set At 11271		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 11271	
Producing Thru Thg.		Reservoir Temp. °F 185		Mean Annual Temp. °F 11271 (Est.)		Bore. Press. - P _a 13.2	
L		H		G _g		% CO ₂	
11271		11271		.577			
				% N ₂		% 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							2322				24 hrs.
1.	4	x	2.500	347	6.10	68	2184				1 hr.
2.	4	x	2.500	347	12.25	70	2067				1 hr.
3.	4	x	2.500	358	19.36	69	1927				1 hr.
4.	4	x	2.500	365	29.16	69	1752				1 hr.
5.											

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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	32.64	46.87	360.2	.9924	1.316	1.028	2054
2	32.64	66.43	360.2	.9905	1.316	1.028	2905
3	32.64	84.77	371.2	.9915	1.316	1.029	3715
4	32.64	105.02	378.2	.9915	1.316	1.029	4602
5.							

NO.	P _r	Temp. °R	T _r	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.	.54	528	1.51	.946	Dry				672	350
2.	.54	530	1.51	.946						
3.	.55	529	1.51	.945						
4.	.56	529	1.51	.944						
5.										

NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1	2335.2	2227.2	4960.4	492.7
2	5453.2	2143.3	4593.7	859.4
3		2049.1	4198.8	1254.3
4		1943.7	3778.0	1675.2
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.255$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10.305$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.239$$

Absolute Open Flow	10,305	Mcf/d @ 15.025	Angle of Slope °	55.75°	Slope, n	.683
Remarks:						
Approved By Consultant: _____ Conducted By: Reggie Reston & J.B. Murray Calculated By: Rick Pagan Checked By: _____						

SUGGESTED FIELD DATA SHEET (Not Required To File)

OCT

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Type Test	☒ Initial ☐ Annual ☐ Special			Test Date	10-18-76			Lease No. or Serial No.	D. L. 111		
Company	Morris R. Antweil			Connection	EPNG			Allottee	ARTESIA, OFFICE		
Field	Reservoir Morrow			Location			Unit	G			
Completion Date	Total Depth		Plug Back TD		Elevation		Farm or Lease Name				
10-18-76							XL				
Csg. Size	Wt.	d	Set At	Perforations: From		To	Well No.				
5 1/2	17#		11781	11360		11438	1				
Tbg. Size	Wt.	d	Set At	Perforations: From		To	Sec.	Twp.-Blk.		Rge.-Sur.	
2 3/8	4.7		11271				20	22S		27E	
Type Completion (Describe)						Packer Set At	County or Parish				
Single						11271	Eddy				
Producing Thru	Reservoir Temp. F		Mean Annual Temp. F		Baro. Press. - P _a		State				
Tbg.	185 @ 11271		(Est.)		13.2		New Mexico				
L	H	G _q	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run		Taps		
11271	11271		.577				4		Flg		

DATE Time of Reading	ELAP. TIME Hrs.	Wellhead Working Pressure			METER OR PROVER				REMARKS (Include liquid production data; Type—A.P.I. Gravity—Amount)
		Tbq. Psig.	Csq. Psig.	Temp. F	Pressure Psig.	Diff.	Temp. F	Orifice	
9:30		2322						2.500	
9:45		Test Start							
10:00		2160			347	2.47	70	2.500	8/64
10:15		2179			347	2.47	68	2.500	
10:30		2184			347	2.47	68	2.500	
10:45		2184			347	2.47	68	2.500	First Rate
11:00		2057			347	3.5	69	2.500	11/64
11:15		2070			347	3.5	70	2.500	
11:30		2067			347	3.5	70	2.500	
11:45		2067			347	3.5	70	2.500	Second Rate
12:00		1931			357	4.45	68	2.500	14/64
12:15		1931			358	4.4	69	2.500	
12:30		1923			358	4.4	68	2.500	
12:45		1927			358	4.4	69	2.500	Third Rate
1:00		1745			365	5.4	70	2.500	17/64
1:15		1747			365	5.4	70	2.500	
1:30		1750			365	5.4	69	2.500	
1:45		1752			365	5.4	69	2.500	Fourth Rate

Page _____ of _____ Data By _____

MORRIS R. ANTWEIL

XL No. 1

G-20-22S-27E Eddy County, New Mexico

October 18, 1976

