

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

951 File
Form C-122
Revised 9-1-65

RECEIVED BY

JUL 13 1984

O. C. D.
ARTESIA, OFFICE

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 7-11-84	
Company TRANSWESTERN GAS SUPPLY			Connection TO AIR		
Pool <i>Uncl. Abo</i>			Formation ABO		
Completion Date 8-11-82		Total Depth 3600		Plug Back To 3558 3131	
Elevation 4472		Farm or Lease Name ANTELOPE FEDERAL			
Case Size 4.500	Wt. 10.5	d 4.052	Set At 3600	Perforations: From 3079 To 3111	
Flg. Size 2 3/8	Wt.	d	Set At 2933	Perforations: From OPEN To ENDED	
Type Well - Single - (Packerhead - G.C. or G.O. Multiple) SINGLE				Packer Set At 0	
Producing Thru TUBING		Reservoir Temp. °F 105 3125		Mean Annual Temp. °F 60°	
				Base. Press. - P _a 13.2	
L 3125	H 3125	G _g .616	% CO ₂ .000	% N ₂ 5.235	% H ₂ O 0
Prover 2		Motor Run 0		Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
51							357	78	357	78	24 HRS
1.	2.00 X 0.0625			165	0.00	94	352	78	352	78	60MIN
2.	2.00 X 0.0625			345	0.00	98	345	78	345	78	60MIN
3.	2.00 X 0.125			312	0.00	98	312	77	312	77	60MIN
4.	2.00 X 0.1875			217	0.00	90	217	78	250	78	60MIN
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 _{sp}	Rate of Flow Q, Mcf/d
1	.06405	0.00	178.2	.9588	1.274	1.012	74
2	.06405	0.00	358.2	.9553	1.274	1.023	29
3	.2648	0.00	325.2	.9653	1.274	1.021	108
4	.6082	0.00	230.2	.9723	1.274	1.015	176
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	.27	554	1.58	.977	0	0	.616	XXXXXX	662	351
2	.54	558	1.59	.956				XXXXXX		
3	.49	558	1.59	.960						
4	.35	550	1.57	.970						
5										

NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²
1	370.2	137	365.2	133.
2			358.2	128.
3			325.2	106.
4			263.2	69.
5				

(1) $\frac{P_r^2}{P_r^2 + P_w^2} = 2.0147$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.8784$

AOI = Q $\left[\frac{P_r^2}{P_r^2 + P_w^2} \right]^n = 330.6$

Absolute Open Flow 330.6 Mcf/d @ 15.025

Angle of Slope @ 48°

Slope, n .900

Remarks:

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