

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

Well file
 Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 1/11/98				
Company Citation Oil & Gas Corp.				Connection G F M Warren					
Pool Eumont Yates & Rivers Queen				Formation Yates / 7 Rivers				Unit J ; Sec 20; 21 S ; 36 E	
Completion Date 10/12/97		Total Depth 3850'		Plug Back TD 3790'		Elevation 3612' (Est)		Farm or Lease Name Devonian State	
Casing Size 5 1/2 "	Wt. 15.5#	d 4.95"	Set At 3843'	Perforations: From 3030' To 3559'		Well No. 7			
Tubg. Size 2 3/8"	Wt. 4.7#	d 1.995"	Set At 3561'	Perforations: From To		Unit Sec. Twp. Rge. J 20 21 S 36 E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At None		County Lea		
Producing Thru Casing		Reservoir Temp. °F 90 @ 3030'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 3030'	H 3030'	G _g 0.859	% CO ₂ 4.23	% N ₂ 1.27	% H ₂ S 0	Prover	Meter Run X	Taps	

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									40.7	60	24 hrs.
1.	3.826		1.5	51.84	30.25	60			31.4	57	24 hrs
2.											
3.											
4.											
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	10.88	44.36	65.04	1.00	1.079	1.021	531.6
2							
3							
4							
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>None Produced</u> Mcl/bbl.	
1	0.096	520	1.21	0.960	A.P.I. Gravity of Liquid Hydrocarbons <u>None Produced</u> Deg.	
2.					Specific Gravity Separator Gas <u>.859</u> <u>XXXXXXXXXX</u>	
3.					Specific Gravity Flowing Fluid <u>XXXXXX</u>	
4.					Critical Pressure <u>664</u> P.S.I.A. <u>680</u> P.S.I.A.	
5					Critical Temperature <u>441</u> °R <u>431</u> °R	

P _c 53.9	P _c ² 2.91		
NO.	P _i ²	P _w	P _w ²
1	1.99	46.1	2.13
2			
3			
4			
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.731$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1983$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.731$$

Absolute Open Flow <u>1983</u> Mcfd @ 15.025	Angle of Slope <u>45</u>	Slope, n <u>1.0</u>
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Remarks: Well is producing through tubing / casing annulus.

Approved By Commission:	Conducted By: Arc Pressure Data Inc.	Calculated By: Rod Dodson	Checked By:
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[illegible]

GAS WELL BACK-PRESSURE CURVE

CITATION OIL & GAS CORP.
DEVONIAN STATE #7
LEA COUNTY, NM
1/11/98

