

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date	
Company ELK OIL COMPANY		Connection Air	
Pool Four Ranch Pre-Permian		Formation Fusselman	
Completion Date 08/30/96		Elevation 6211	
Total Depth		Plug Back TD	
Casing Size 5 1/2		Well No. 2	
Well 17#		Set At TD	
Perforations: From 6174 To 6211		Farm or Lease Name Jan State	
Thru Size 2 3/8		Set At 6113	
Perforations: From Open To Ended		Unit 36 8S 26E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple		Packer Set At 6113	
Producing Thru Tubing		County Chaves	
Reservoir Temp. °F 6		State New Mexico	
Mean Annual Temp. °F		Baro. Press. - P _a	
L .619		H .394	
G _g		% CO ₂ 3.519	
% N ₂		% H ₂ S	
Prover		Meter Run 3	
Taps Flange			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							2050		Packer	
1.	3		2	260	11	60	1870		Packer	1 hour
2.	3		2	270	28	60	1660		Packer	1 hour
3.	3		2	340	32	60	1450		Packer	1 hour
4.	3		2	400	31	60	1320		Packer	1 hour
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 _{pv}	Rate of Flow Q, Mcfd
1	21.32	54.820	273.2	1.000	1.271	1.021	1464
2.	21.32	89.048	283.2	1.000	1.271	1.022	2467
3.	21.32	106.313	353.2	1.000	1.271	1.028	2961
4.	21.32	113.178	413.2	1.000	1.271	1.033	3168
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P_c 2423 P_c² 5871

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		2277	5185	686
2		2080	4326	1544
3		1902	3618	2253
4		1752	3069	2801
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.096 \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.560$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4370$$

Absolute Open Flow **4370** Mcfd @ 15.025 Angle of Slope **61** Slope, n **601**

Remarks: **Bottom Hole Pressures Recorded With Amerada Type Gauge**

Approved By Division	Conducted By: Keltic Services	Calculated By: Kelly	Checked By:
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