

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-4-84			
Company Elk Oil Company				Connection					
Pool Kemnitz				Formation Atoka				Unit G	
Completion Date 12-29-83		Total Depth 13,145'		Plug Back TD 13,100'		Elevation 4086 G.L.		Farm or Lease Name East Kemnitz	
Csq. Size 5½"	Wt. 13#	d 4.494	Set At 13,145	Perforations: From 12,614 To 12,640			Well No. 2		
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 12,514	Perforations: From OPENENDED To			Unit Sec. Twp. Rye. G 27 16S 34E		
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single						Packer Set At 12,514		County	
Producing Thru Tubing		Reservoir Temp. °F 199° @ 12,514		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 12,514	H 12,514	G _g .609	% CO ₂ .589	% N ₂ 3.270	% H ₂ S	Prover	Meter Run 4 026	Taps Flange	

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	4.026						3942	65°	PKR	CHOKE	48 Hrs.
1.	4	x	1.750	540	5	72°	3395	64		9/64	1 Hr.
2.	4	x	1.750	545	16	72	2795	66		12/64	1 Hr.
3.	4	x	1.750	550	35	78	1810	68		15/64	1 Hr.
4.	4	x	1.750	555	47	64	1180	69		20/64	1 Hr.
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	14.93	52.59	553.2	.9887	1.281	1.041	1035
2	14.93	94.51	558.2	.9887	1.281	1.042	1862
3	14.93	140.40	563.2	.9831	1.281	1.040	2745
4	14.93	163.42	568.2	.9962	1.281	1.045	3254
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	185.333	Mcf/bbl.
1	.83	532	1.52	.922	A.P.L. Gravity of Liquid Hydrocarbons	47.1 @ 60°	Deg.
2	.84	532	1.52	.921	Specific Gravity Separator Gas	.609	XXXXXXX
3	.84	538	1.54	.925	Specific Gravity Flowing Fluid	XXXXX	G Mix .626
4	.85	524	1.50	.916	Critical Pressure	668	P.S.I.A. 666
5					Critical Temperature	349	R 356

NO.	P _f ²	P _w ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.300$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.256$
1		3414.6	11659.9	3983.7	ACT = C $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.448$	
2		2832.2	8021.3	7622.3		
3		1900.2	3611.1	12032.5		
4		1356.9	1841.3	13802.3		
5						

Absolute Open Flow		3,448	Mcf/d @ 15.025	Angle of Slope θ	49°	Slope, n	.869
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Remarks: 2 bbls. of condensate during test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	W.S.	R.R.	R.R.

RECEIVED

FEB 22 1994

**O.C.D.
HOBBS OFFICE**