

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-23-88			
Company ELK OIL COMPANY ✓				Connection ENRON		JUN 27 '88	
Pool FOOR RANCH WOLFCAMP				Formation WOLFCAMP		Unit O. C. D. ARTESIA, OFFICE	
Completion Date 6-22-88		Total Depth 6136		Plug Back TD 6080		Elevation 7847 ft	
Farm or Lease Name RUNYAN ST.		Well No. 3		Unit N		Sec. 24 Twp. 9S Rge. 26E	
Coq. Size 5 1/2		Wt. 15.5		Set At 6136		Perforations: From 5236 To 5546	
Tbg. Size 2-3/8		Wt. 5.166		Set At 5166		Perforations: From OPEN To ENDED	
Type Well - Single - Brdhead - G.G. or G.O. Multiple SINGLE				Packer Set At 5160		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 60		Mean Annual Temp. °F 13.2		State NM	
L H		Gg .681		% CO ₂		% N ₂	
				% H ₂ S		Prover	
						Meter Run 2"	
						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							954		PACKER		
1.	2	x	1.25	220	10	66	890		"		1 hr.
2.	2	x	1.25	270	30	61	809		"		"
3.	2	x	1.25	340	57	63	675		"		"
4.	2	x	1.25	390	76	64	440		"		"
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	8.319	48.29	233.2	.9943	1.2118	1.0239	496
2	8.319	92.17	283.2	.9999	1.2118	1.0304	956
3	8.319	141.89	353.2	.9971	1.2118	1.0379	1480
4	8.319	175.05	403.2	.9962	1.2118	1.0434	1835
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/obl.
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

NO.	P _c	P _w	P _w ²	P _c ² - P _w ²
1	1033.2	958.2	918.1	149.4
2	1067.5	884.2	781.8	285.7
3		767.2	588.5	478.9
4		625.2	390.9	676.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.577$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2587$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.410$

Absolute Open Flow	2587	Mcf/d @ 15.025	Angle of Slope θ	53°	Slope, n	.7536
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Remarks: ALL BOTTOM HOLE PRESSURE TESTS DONE WITH AMERADA TYPE GAUGE

Approved By Division	Conducted By: KELTIC SERVICE	Calculated By: M. KELLY	Checked By:
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ELK OIL CO

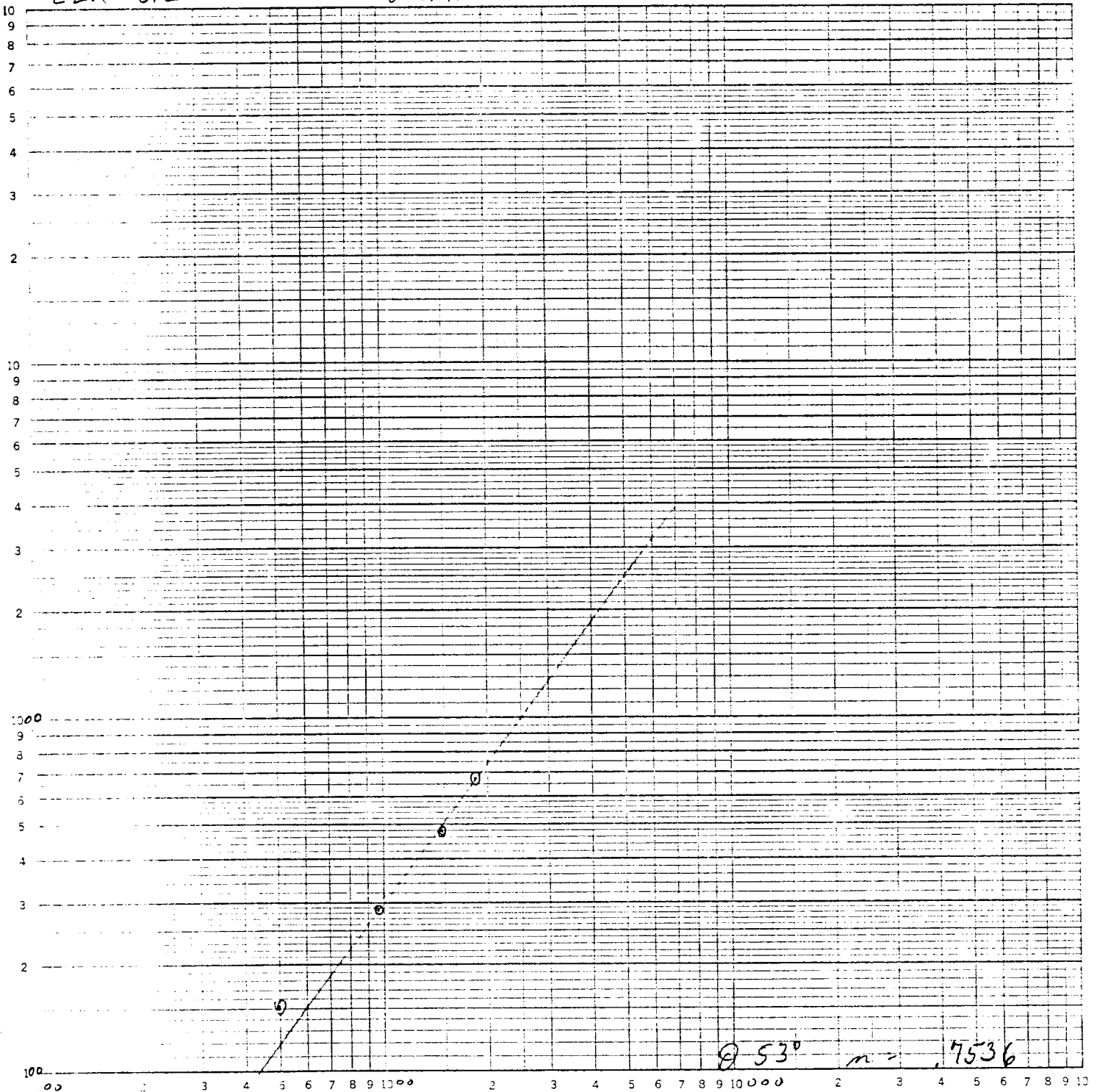
RIWAYATI #3

6/23/88

$P^2 - P^2$ (000's)

467460

100' DIAMETER 3 X 3 CIRCLES
BY THE METHOD OF L. E. CO. M. H. H. A.



Q
MSCFPD