N XICO OIL CONSERVATION COMM

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
DEC 28 1976
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 12/22/76	
Company: Atlantic Richfield		Connection: Gas Company of New Mexico			
Pool: West Burton Flat - Strawn		Formation: Strawn		Unit	
Completion Date: 12/20/76	Total Depth: 11380	Plug Back TD: 10949	Elevation: 3152.2	Farm or Lease Name: Kurland Federal	
Csg. Size: 5.5 / Wt.: 15.5 / d: 4.892 / Set At: 11378		Perforations: From 9990 To 10021		Well No.: 1	
Tbg. Size: 2.875 / Wt.: 6.5 / d: 2.441 / Set At: 9930		Perforations: From Open To Ended		Unit: S / Sec.: 6 / Twp.: 21S / Rge.: 27E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 9930		County: Eddy	
Producing Thru: Tbg	Reservoir Temp. °F: 172	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico	
L: 9930 / H: 9930 / Gg: 0.665	% CO_2	% N_2	% H_2S	Prover	Meter Run: 4" / Taps: Flg.

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					3730		Pkr		48 hrs.
1.	4 x 0.625	484	2.0	47	3480	54			1.25 hr.
2.	4 x 0.625	415	10.5	51	3144	58			1.25 hr.
3	4 x 0.625	395	14.5	58	3011	64			1.25 hr.
4.	4 x 0.625	374	34.0	63	2576	66			1.25 hr.
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	1.878	31.53	497.2	1.013	1.226	1.061	78
2	1.878	67.05	428.2	1.009	1.226	1.051	164
3	1.878	76.93	408.2	1.002	1.226	1.045	185
4	1.878	114.74	387.2	0.9971	1.226	1.041	274
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.74	507	1.34	0.889
2.	0.64	511	1.35	0.906
3.	0.61	518	1.37	0.915
4.	0.58	523	1.38	0.922
5				

Gas Liquid Hydrocarbon Ratio 128 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 55.9 Deg.
Specific Gravity Separator Gas 0.665 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.688
Critical Pressure 670 P.S.I.A. 669 P.S.I.A.
Critical Temperature 378 R 385 R

P_c 3743.2 P_c^2 14011.5

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3494.0	12208.0	1803.5
2		3157.9	9972.3	4039.2
3		3024.9	9150.0	4861.5
4		2589.9	6707.6	7303.9
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.918$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.800$

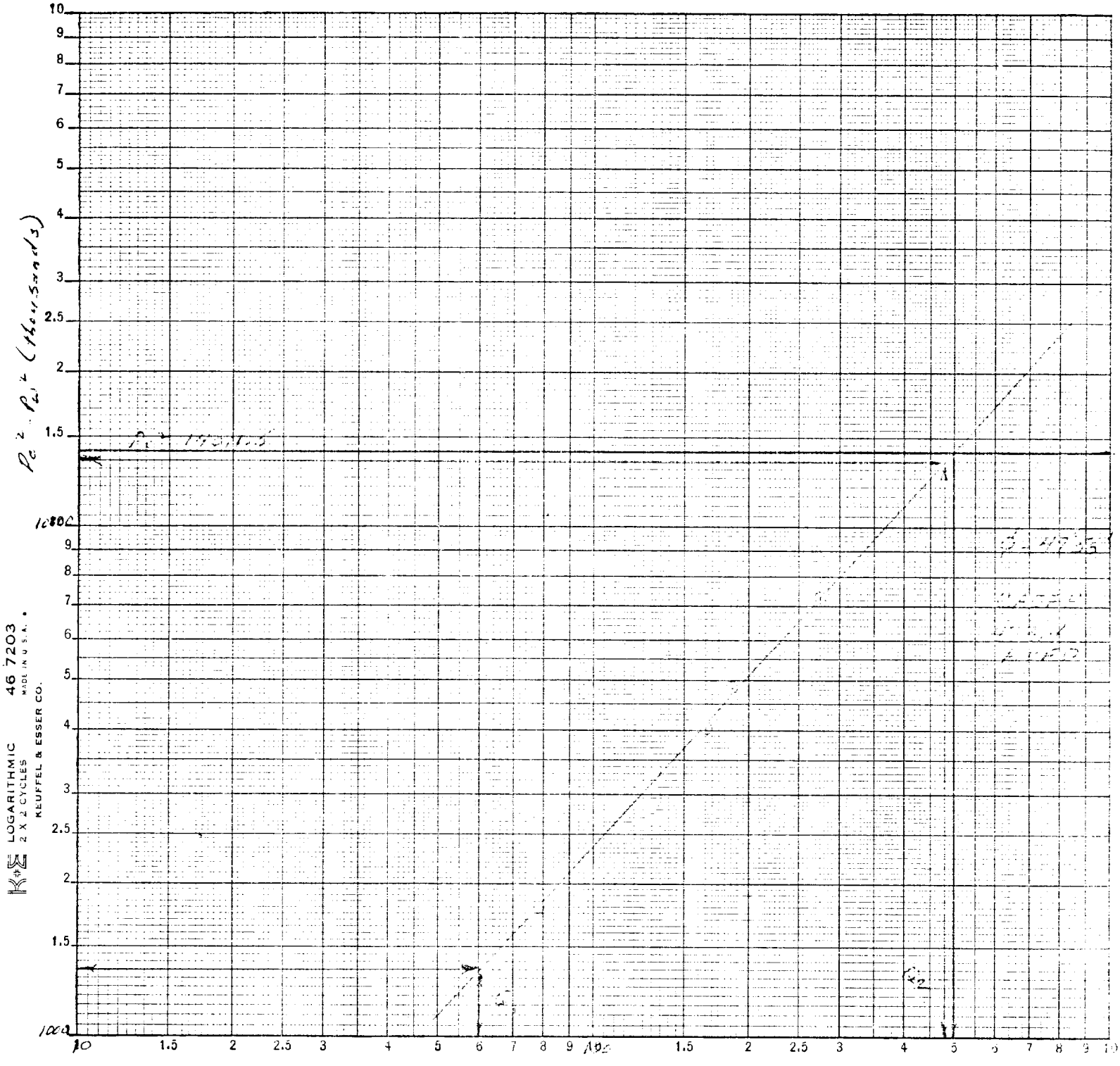
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 493.4$

Absolute Open Flow 493.4 Mcfd @ 15.025 Angle of Slope θ 47° 55' Slope, n 0.903

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. Cogburn	B. Needham	L. C. Hudry

Atlantic Richfield
Kurland Federal
S, 6, T-21S, R-27E
Eddy County, N.M
12-22-76



$Q_2 = 480$ $\quad \log = 2.681241$

$Q_1 = 60$ $\quad \log = 1.778151$

$n = 0.903090$

$= 0.903$