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NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP 30 1974
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special | Test Date: 9-20-74

Company: Mark Production Company	Connection: None			
Pool: Cemetary Morrow	Formation: Morrow			Unit: 0
Completion Date: 6-27-74	Total Depth: 9550'	Plug Back TD: 9496'	Elevation: 3508 DF	Farm or Lease Name: New Mexico Osage Com
Csg. Size: 4 1/2 / Wt.: 11.6 / d: / Set At: 9400'	Perforations: From 9341 To 9398			Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.70 / d: / Set At: 9174	Perforations: From To			Unit: 0 / Sec.: 5 / Twp.: 20-S / Rge.: 25-E
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single		Packer Set At: 9174'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 215	Mean Annual Temp. °F:	Baro. Press. – P_a:	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
9370	9370	.582					X	

	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						2860	70			
1.	3.0	2.0	230	12	30	2752	71			1 Hr
2.	3.0	2.0	230	18	45	2609	74			1 Hr
3.	3.0	2.0	360	20	52	2430	75			1 Hr
4.	3.0	2.0	300	26	50	2060	73			1 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	21.32	54.02	243.2	1.0302	1.3108	1.023	1591
2.	21.32	66.16	243.2	1.0147	1.3108	1.022	1918
3.	21.32	86.39	373.2	1.0078	1.3108	1.022	2487
4.	21.32	90.24	313.2	1.0098	1.3108	1.028	2618
5.							

NO.	P_t	Temp. °R	T_r	Z
1	.36	490	1.40	.955
2.	.36	505	1.44	.957
3.	.56	512	1.46	.937
4.	.47	510	1.46	.947
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure 672 P.S.I.A. 672 P.S.I.A.
Critical Temperature 350 R 350 °R

P_c 2873.2 P_c^2 8255

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2777.9	7717	538
2.		2643.6	6987	1268
3.		2482.1	6156	2099
4.		2121.3	4500	3755
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{8255}{2099}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.09870$

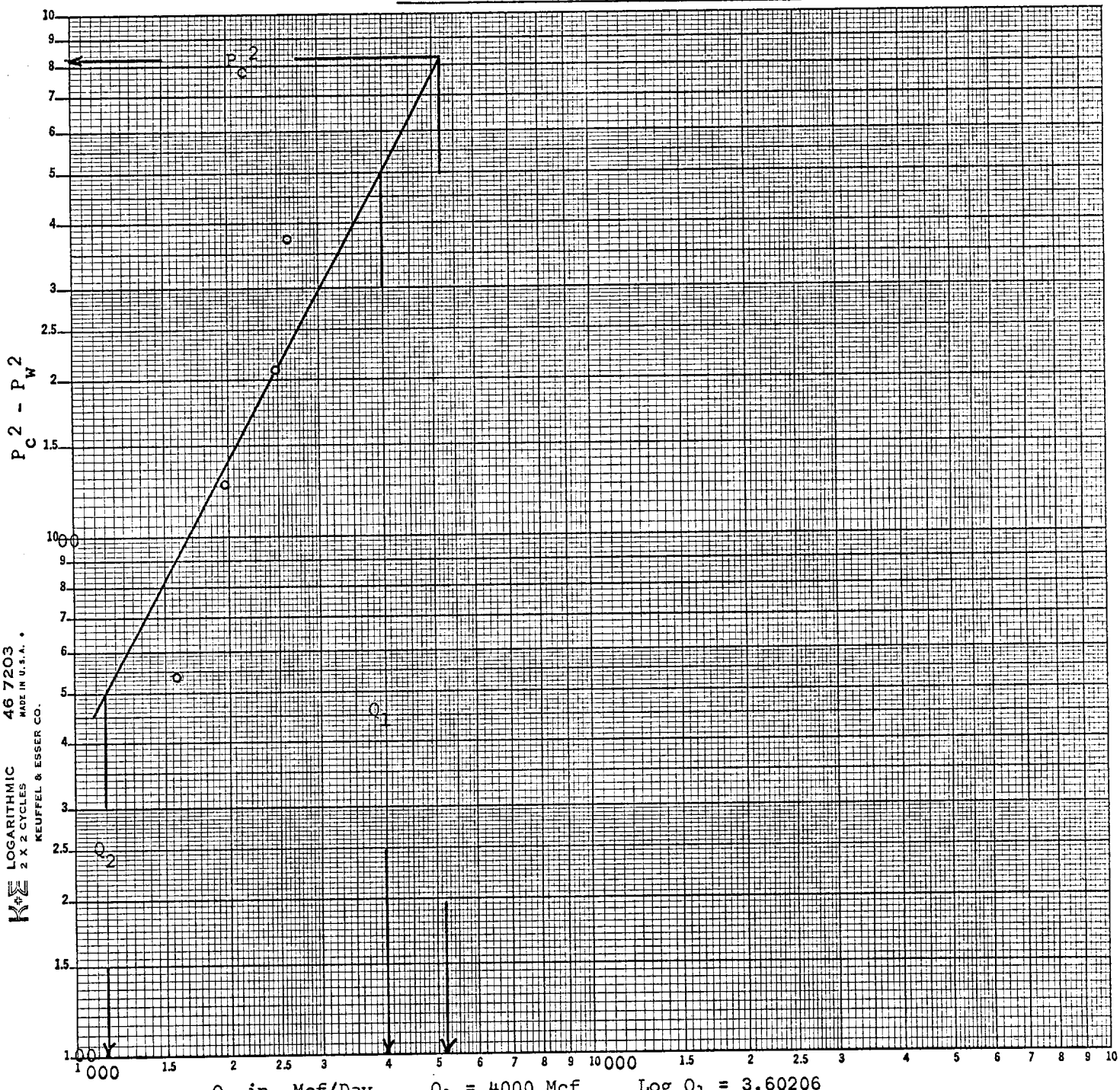
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5219$

Absolute Open Flow 5219 Mcfd @ 15.025 | Angle of Slope θ 61° 35' | Slope, n .541

Remarks:

Approved By Commission: | Conducted By: W T Hagler | Calculated By: H L Hagler, WEST TEXAS CONSULTING SERVICE, INC. | Checked By:

OPERATOR	Mark Production Company
LEASE	New Mexico Osage
WELL NO.	1
FIELD	Cemetary (Morrow)
COUNTY	Eddy, New Mexico
DATE	9-20-74



Q in Mcf/Day Q_1 = 4000 Mcf Log Q_1 = 3.60206

θ = 61° 35' Q_2 = 1150 Mcf Log Q_2 = 3.06069

n = .541 .54136

Absolute Open Flow = 5219 Mcf/Day