

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

Form C-122
Revised 9-1-65

SPJD DATE: 2/25/77

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-23-77	
Company Doyle Hartman		Connection None	
Pool South Eunice		Formation Seven Rivers - Queen	
Completion Date 3-23-77		Total Depth 3850	Plug Back TD 3808
Csg. Size 4 1/2		WT. 10.5	Elevation 3561 KB
Tbg. Size 2 3/8		WT. 4.7	Farm or Lease Name Citgo SE State
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At None	Well No. 1
Producing Thru Tbg.		Reservoir Temp. °F 91	Mean Annual Temp. °F 3714
Baro. Press. - P _a 13.2		State New Mexico	
Prover 6" Positive Choke		Meter Run 1 cips	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Choke	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
1.	6 x 1/4			177		65	179		171		30 Min.
2.	6 x 3/8			165		65	177		170		30 Min.
3.	6 x 1/2			145		65	165		167		30 Min.
4.	6 x 5/8			114		65	145		164		30 Min.
5.							114		161		30 Min.

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.	1.112		190.2	.9952	1.180	1.022	254
2.	2.591		178.2	.9952	1.180	1.022	554
3.	4.722		158.2	.9952	1.180	1.019	894
4.	7.522		127.2	.9952	1.180	Nil	1124
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.28	525	1.32	.957	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.27	525	1.32	.958	Specific Gravity Separator Gas .718 X X X X X X X X
3.	.24	525	1.32	.963	Specific Gravity Flowing Fluid X X X X X
4.	.19	525	1.32	Nil	Critical Pressure 668 P.S.I.A. _____ P.S.I.A. _____
5.					Critical Temperature 398 R _____ R _____

NO.	P _r ²	P _w	P _r ² - P _w ²	P _c ² - P _w ²
1.	183.2	33.562	3.379	
2.	180.2	32.472	4.469	
3.	177.2	31.400	5.541	
4.	174.2	30.346	6.595	
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.601$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6.296$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.601$

Absolute Open Flow 6.296 Mcfd @ 15.025	Angle of Slope θ 45°	Slope, n 1.000
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Remarks: Due to flat point alignment a slope of 1.000 was drawn through the high rate of flow.

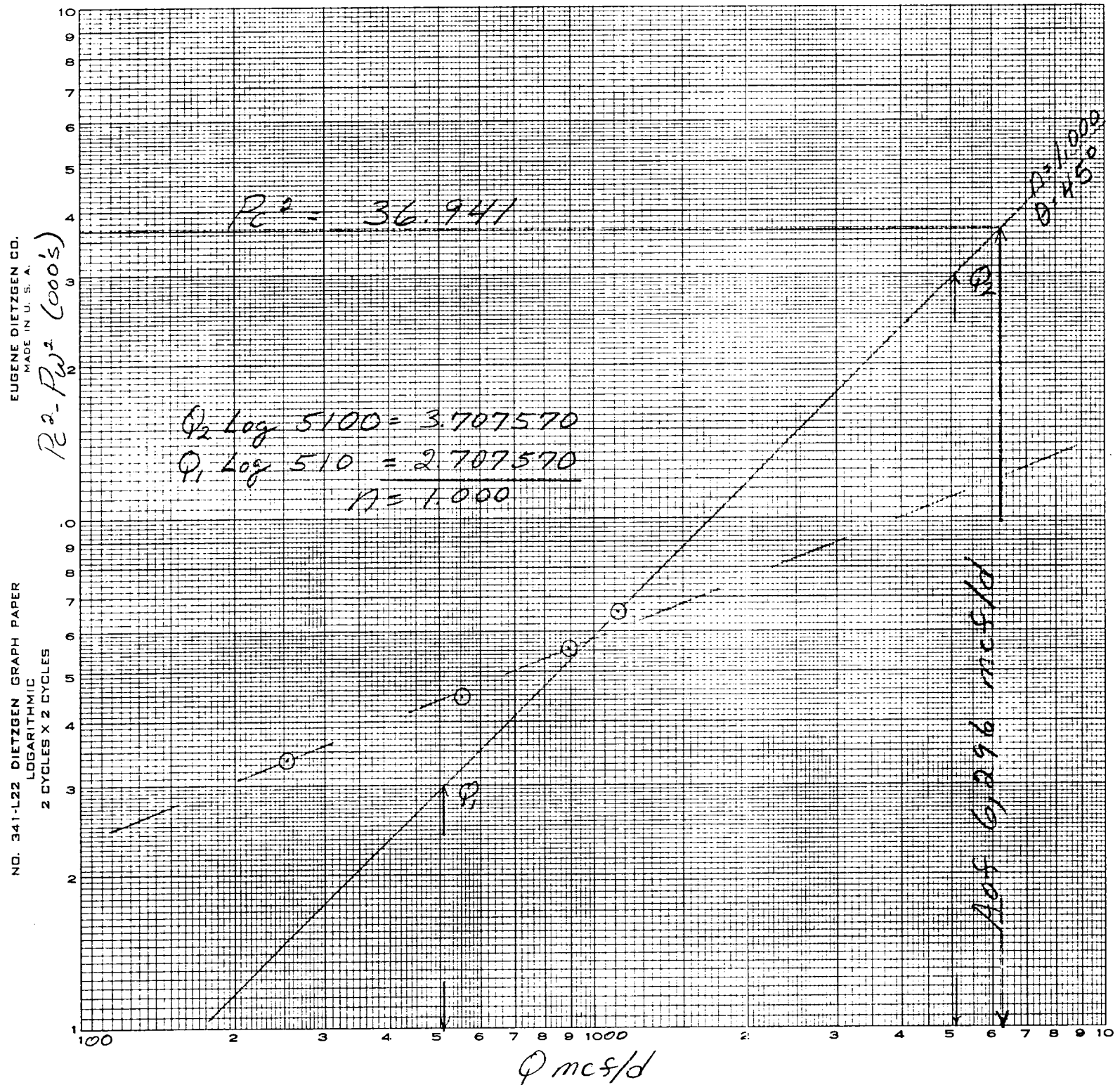
Approved By Commission:	Conducted By: Rick Pagan	Calculated By: Rick Pagan	Checked By:
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U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C.

DOYLE HARTMAN
 Citgo SE State No. 1
 H 17-22-36 Lea County, New Mexico
 March 23, 1977



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U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
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