

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

Form C-122
Revised 9-1-65

RECEIVED

MAY - 8 1978

U. C. C.
ARTERIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-27-78			
Company R.L. Foree ✓				Connection Phillips Petroleum					
Pool Sams Ranch				Formation Grayburg				Unit E	
Completion Date 11-22-77		Total Depth 1750		Plug Back TD 1700		Elevation 3658.8 GL		Farm or Lease Name Midwest Federal	
Csg. Size 4 1/2	Wt. 9.5	d	Set At 1700	Perforations: From 1630 To 1635		Well No. # 4			
Tag. Size 2 3/8	Wt. 4.7	d	Set At 1600	Perforations: From To		Unit E		Sec. 9	Twp. 14
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single Gas Well						Packer Set At None		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 78° @ Perfs		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 1630	H 1630	Gg .7415	% CO ₂	% N ₂ 25.082	% H ₂ S	Prover	Meter Run 4"	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							678				48 Hrs
1.	4	X	1.0	587	1	60°	613	60°	660		1 Hr
2.	4	X	1.0	579	1.13	60°	600	60°	640		1 Hr
3.	4	X	1.0	470	5.1	60°	501	60°	590		1 Hr
4.	4	X	1.0	396	12.5	60°	406	60°	535		1 Hr
5.											

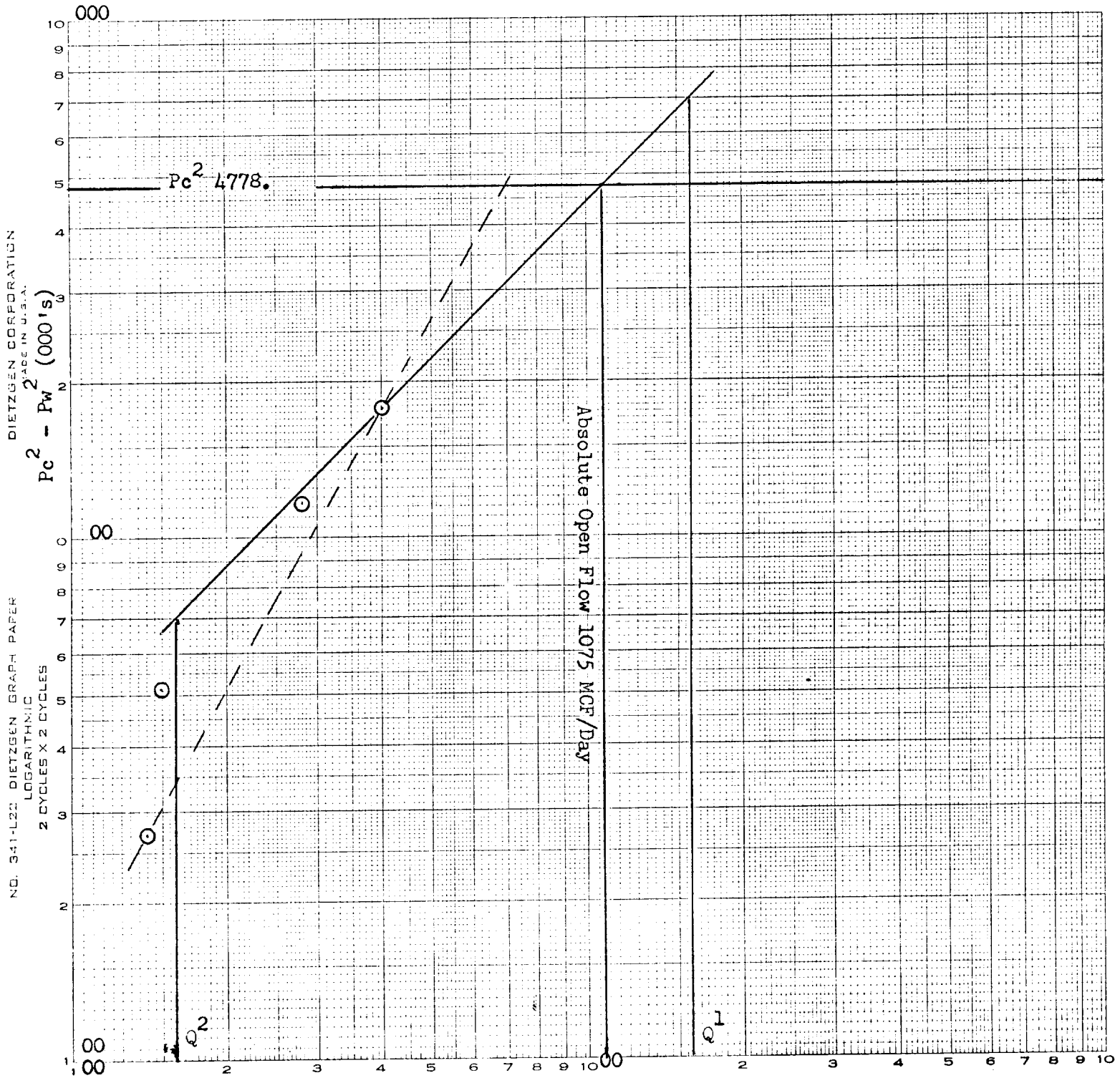
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{spv}	Rate of Flow Q, Mcfd
1	4.753	24.23	587	1.0	1.162	1.046	140.
2	4.753	25.58	579	1.0	1.162	1.045	148.
3	4.753	48.96	470	1.0	1.162	1.037	280.
	4.753	70.36	396	1.0	1.162	1.031	401.

NO.	F _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.939	520°	1.53	.914	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.926	520°	1.53	.915	Specific Gravity Separator Gas _____ X X X X X X X X X
3.	.752	520°	1.53	.930	Specific Gravity Flowing Fluid _____ X X X X X
4.	.634	520°	1.53	.940	Critical Pressure _____ 667 - 42 625 P.S.I.A. 625 P.S.I.A.
5.					Critical Temperature _____ 405 - 66 339 R 339 R

NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.68$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.68$
1	673.2	4532	246			
2	653.2	4267	511			
3	600.2	3602	1176			
4	547.2	2994	1784			
5						

Absolute Open Flow 1075 MCF/Day				Mcf/d @ 15.025	Angle of Slope 45°	Slope, n 1
Remarks:						
Approved By Commission: Conducted By: John Davis Calculated By: Larry Davis Checked By:						

Company: R.L. Foree
 Lease: Midwest Federal
 Well No: # 4
 Field: Sams Ranch
 County: Chaves
 Date: 4-27-78



$$Q^1 = 1580; \text{ Log Of } Q^1 = 3.1986571$$

$$Q^2 = 158; \text{ Log Of } Q^2 = \underline{2.1986571}$$

$$N = 1.000$$



UNITED CHEMICAL CORPORATION

OF NEW MEXICO

P. O. BOX 1499

PHONE (505) 393-7751

HOBBS, NEW MEXICO 88240

No. 7416
Run No. _____
Date of Run 4-28-78
Date Secured 4-27-78

CERTIFICATE OF ANALYSIS

A Sample of R. L. Foree Midwest Federal # 4
Secured from Davis Services
At Box 2033 Secured by J. W. Davis
Hobbs, New Mexico 88240 Time _____ Date _____
Sampling conditions _____ Press _____
Temp. _____

FRACTIONAL ANALYSIS

Percentage Composition

MOL % LIQ. % G.P.M.

Carbon Dioxide	Trace		
Air	25.082		
Nitrogen			
Oxygen			
Hydrogen sulfide			
Hydrogen			
Methane	65.097		
Ethane	5.620	1.499	
Propane	2.165	.596	
Butanes			
iso Butane	.335	.109	
n Butane	.783	.246	
Pentanes			
iso Pentane	.260	.095	
n Pentane	.329	.119	
Hexanes	.173	.071	
Heptanes	Plus .156	.066	
TOTAL	100.000	2.801	

Calc. Sp. Gr. — 0.7415
Calc. A.P.I. — _____
Calc. Vapor Press. — _____ PSIA
Sp. Gr. _____
Mol. Wt. 21.53

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M. .596
Butanes Calc. G.P.M. .355
Pentanes Plus. G.P.M. .351
Ethane Calc. G.P.M. 1.499
RVP Gasoline G.P.M. _____
B.T.U./Cu. Ft. @ 14.696 P.S.I.A. 887
Dry Basis 871
Wet Basis _____
Sulfur Analysis by Titration _____
Gr./100 Cu. Ft. _____
Hydrogen Sulfide _____
Mercaptans _____
Sulfides _____
Residual Sulfur _____
Total Sulfur _____

Run by Debbie Moutray Checked by _____ Approved by _____

Additional Data and Remarks