

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 12-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 6/8/83	
Company The Superior Oil Company		Correction None	
Pool Undesignated		Formation Atoka	
Completion Date 5/28/83		Total Depth 15,850'	Plug Back TD 14166'
Casing Size 7 5/8		Well ID 39.0	Set AI 15,850'
Perforations From 14135' To 14145'		Well No. 1	
Perforations From 14,135 - To 14,145		Unit Sec. Twp. Rys. H 22 25s 32e	
Type well - Single - Brdenhead - G.C. or G.O. Multiple Single		Packer Set AI 14,002'	County Lea
Producing Thru Tubing		Reservoir Temp. °F 210 13995'	Mean Annual Temp. °F 60
Baro. Press. - P _a 13.2		State New Mexico	
L 14,002	H -	G _g 0.5867	% CO ₂ 0.530
% N ₂ 0.700		% H ₂ S -	Prover -
Meter Run 2.900		Taps F	

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. BWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
1	2.90	16/64	2.250	700	12	100	6130	60	1100	60	28.0 hrs
2	2.90	13/64	1.500	700	43	108	1670	60	1200	-	2.0 hrs
3	2.90	10/64	1.250	700	57	100	2360	60	1400	-	2.0 hrs
4	2.90	7/64	1.250	700	25	100	3199	60	1475	-	1.5 hrs
5									1500	-	1.75 hrs

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 _{pv}	Rate of Flow Q, Mcf/d
1	28.780	92.51	713.2	0.9636	1.306	1.041	3487.95
2	11.230	175.12	713.2	0.9568	1.306	1.039	2553.26
3	7.615	201.62	713.2	0.9636	1.306	1.041	2011.38
4	7.615	133.53	713.2	0.9636	1.306	1.041	1332.11
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/ubl.
1	1.06	560	1.62	0.923	A.P.I. Gravity of Liquid Hydrocarbons	-	Deg.
2	1.06	568	1.64	0.927	Specific Gravity Separator Gas	0.5867	X X X X X X X X
3	1.06	560	1.62	0.923	Specific Gravity Flowing Fluid	X X X X X	
4	1.06	560	1.62	0.923	Critical Pressure	675	P.S.I.A.
5					Critical Temperature	346	R

NO.	P ₁ ²	P _w *	P ₂ ²	P ₂ ² - P _w ²
1	2482.2	6161.3	54448.0	
2	2710.2	7345.2	53264.1	
3	3399.2	11554.6	49054.7	
4	4509.2	20332.9	40276.4	
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.11$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.11$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3871.6$$

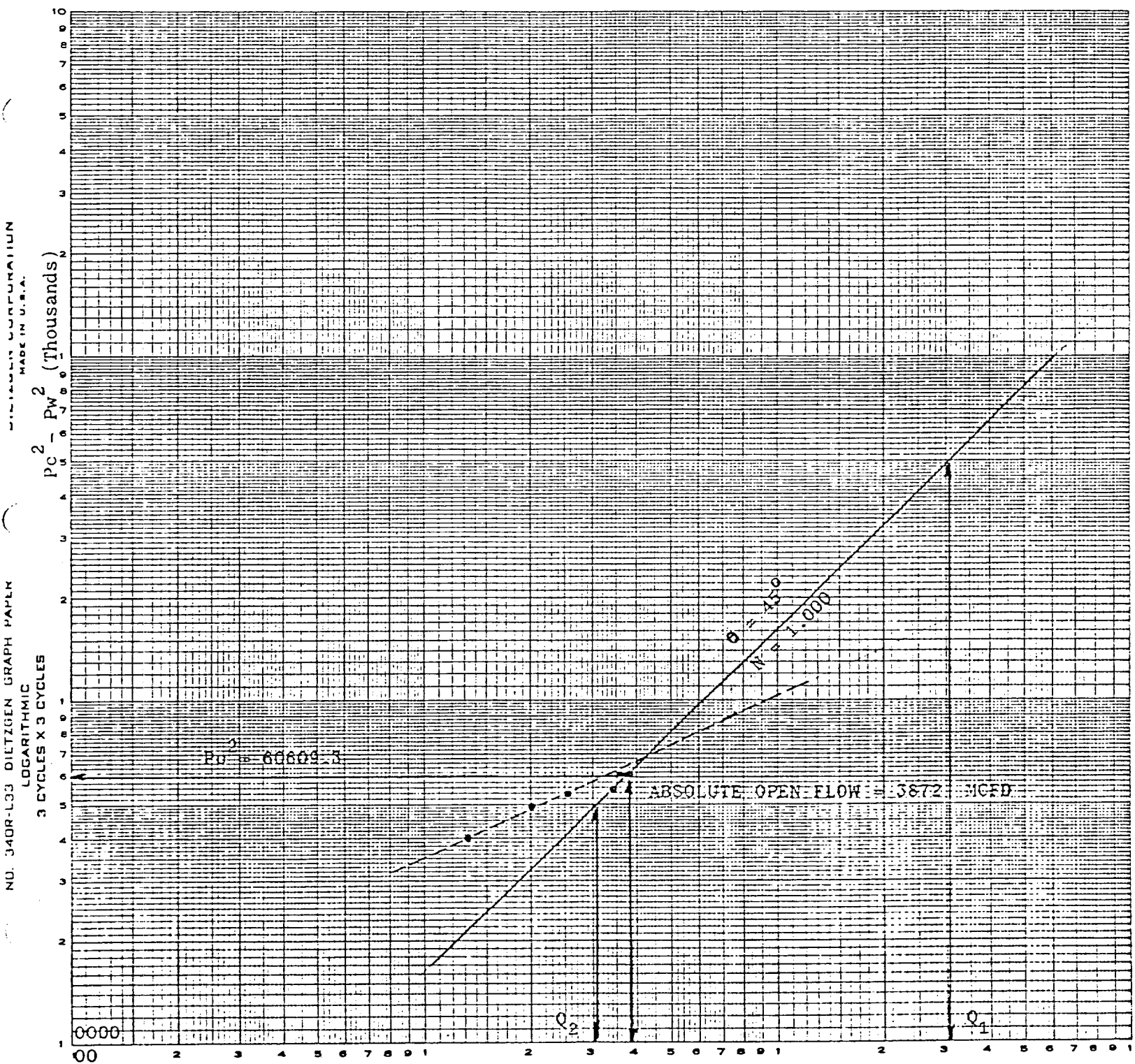
Absolute Open Flow	3872	Mcf/d @ 15.025	Angle of Slope @ 45° 0'	Slope, n 1.000
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Remarks: * BOTTOM HOLE PRESSURE @ (-10731)14140' USED FOR PRESSURE CALCULATIONS
 POINT ALIGNMENT TOO FLAT. A SLOPE OF 45° DRAWN THROUGH HIGH RATE OF FLOW

Approved By Division	Conducted By: JARREL WELL TESTING INC.	Calculated By: Joe A. Coleman	Checked By: PE# 2208 Joe A. Coleman
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RECEIVED
AUG 10 1983
C.C.D.
HOBBS OFFICE

COMPANY: The Superior Oil Company
 WELL: Paduca-Federal Comm, No. 1
 LOCATION: H 22 - 25s - 32e
 COUNTY: Lea
 DATE: June 8, 1983



Q-MCFD
 $Q_1 = 30500$ MCFD; $\log Q_1 = 4.48430$
 $Q_2 = 3050$ MCFD; $\log Q_2 = 3.48430$
 $N = \frac{1.00000}{1.00000} = 1.000$