

File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

OCT 13 '87

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7/30/87			
Company McClellan Oil Corp. ✓				Connection		ARTESIA OFFICE	
Pool S. Pecos Slope ABO				Formation Abo		Unit	
Completion Date 7/30/87		Total Depth 4540'		Plug Back TD 4495'		Elevation 3680' GR	
Farm or Lease Name MM Federal		Well No. 8		Unit G		Sec. Twp. Rge. 25 9S 25E	
Ceq. Size 4 1/2"		Wt. 9.5		Set At 4495'		Perforations: From 4088' To 4233'	
Thq. Size 2-3/8"		Wt. 4.7		Set At 4150'		Perforations: From To	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At None		County Chaves	
Producing Thru tubing		Reservoir Temp. °F -		Mean Annual Temp. °F -		Baro. Press. - P _a -	
L		H		Cg .648		% CO ₂ .06	
				% N ₂ 6.90		% H ₂ S -	
				Prover 2"		Meter Run -	
				Taps -			

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.	
SI							932		932	
1.	2	X	.375		-		541	76	559	76
2.	2	X	.375		-		427	76	447	76
3.	2	X	.375		-		265	80	335	80
4.	2	X	.375		-		148	84	245	84
5.	2	X	.375		-		148	84	245	84

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, F _{pv}	Rate of Flow Q, Mcfd
1	2.378			.9971	1.243	1.060	1600
2	2.378			.9868	1.243	1.060	1500
3	2.378			.9943	1.243	1.060	1100
4	2.378			.9915	1.243	1.060	800
5	2.378			.9915	1.243	1.060	482

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1		360	1.48	.869	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2		360	1.48	.890	Specific Gravity Separator Gas	X X X X X X X X
3		360	1.48	.893	Specific Gravity Flowing Fluid	X X X X X
4		360	1.48	.933	Critical Pressure	P.S.I.A.
5		360	1.48	.933	Critical Temperature	R

NO.	P _c	P _w	P _c ²	P _w ²	P _c ² - P _w ²
1	932	559	868	312	247
2		447		199	248
3		335		112	223
4		245		60	185
5		148		22	126

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.5$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5$

AOI = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 500$

Absolute Open Flow 492 Mcfd @ 15.025

Angle of Slope @ 55

Slope, n 1.5

Remarks:

Approved By Division	Conducted By:	Calculated By:	Checked By:
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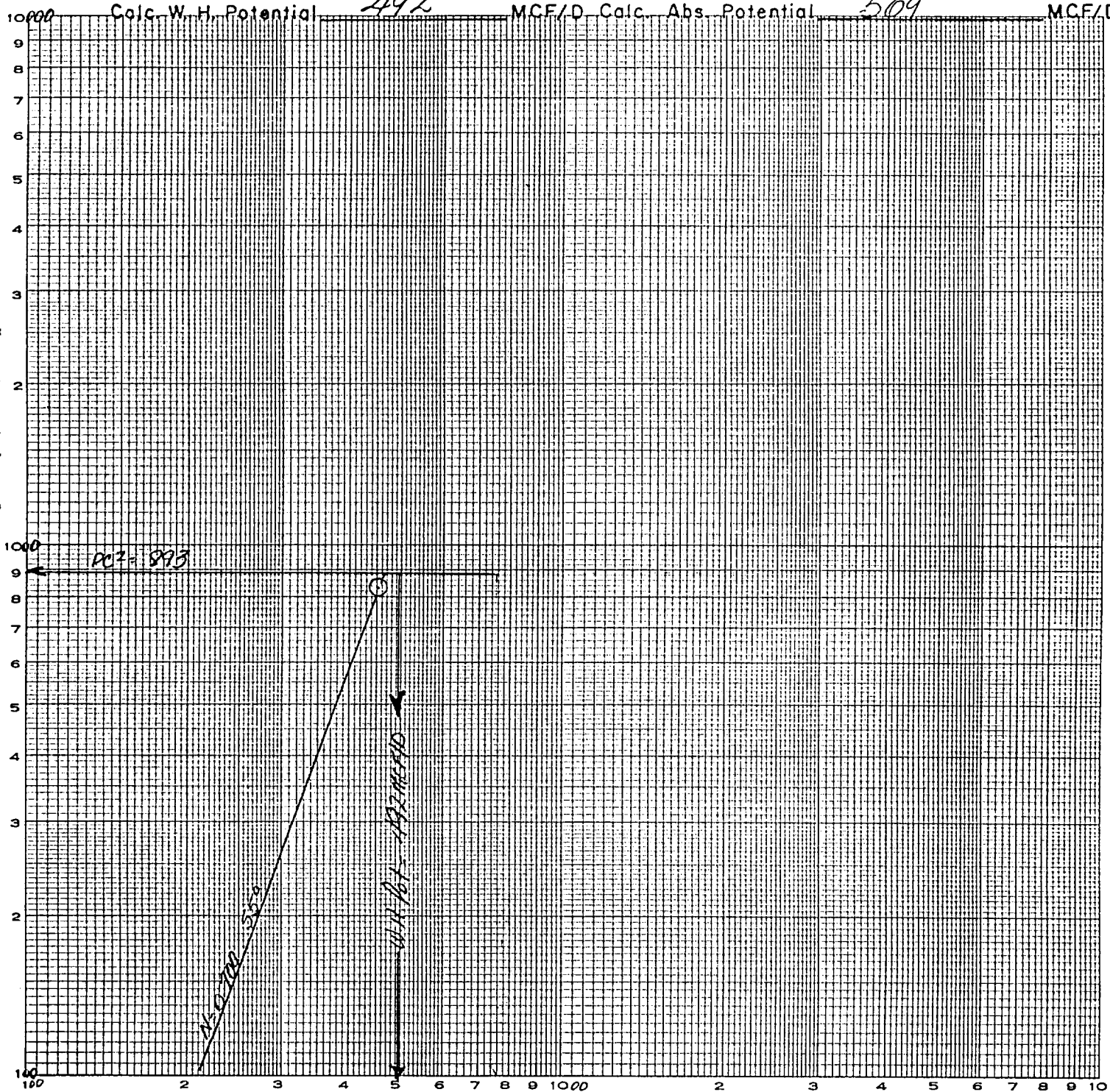
BACK PRESSURE CURVE

Operator McClellan Oil Lease MEM Federal Well No. 8
 County Craves Field Pecos Slope Abo Location 25-9S-25E
 Date of Test 7-30-87 Slope "n" .700 W.H. .700 Abs.

Calc. W. H. Potential 492 MCF/D Calc. Abs. Potential 509 MCF/D

EUGENE DIETZEN CO.
 MADE IN U. S. A.
 $(P_c^2 - P_i^2) / (P_c - P_w)$ in Thousands

ND. 341-L22 DIETZEN GRAPH PAPER
 LOGARITHMIC
 2 CYCLES X 2 CYCLES



Q in MCF/Day