

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

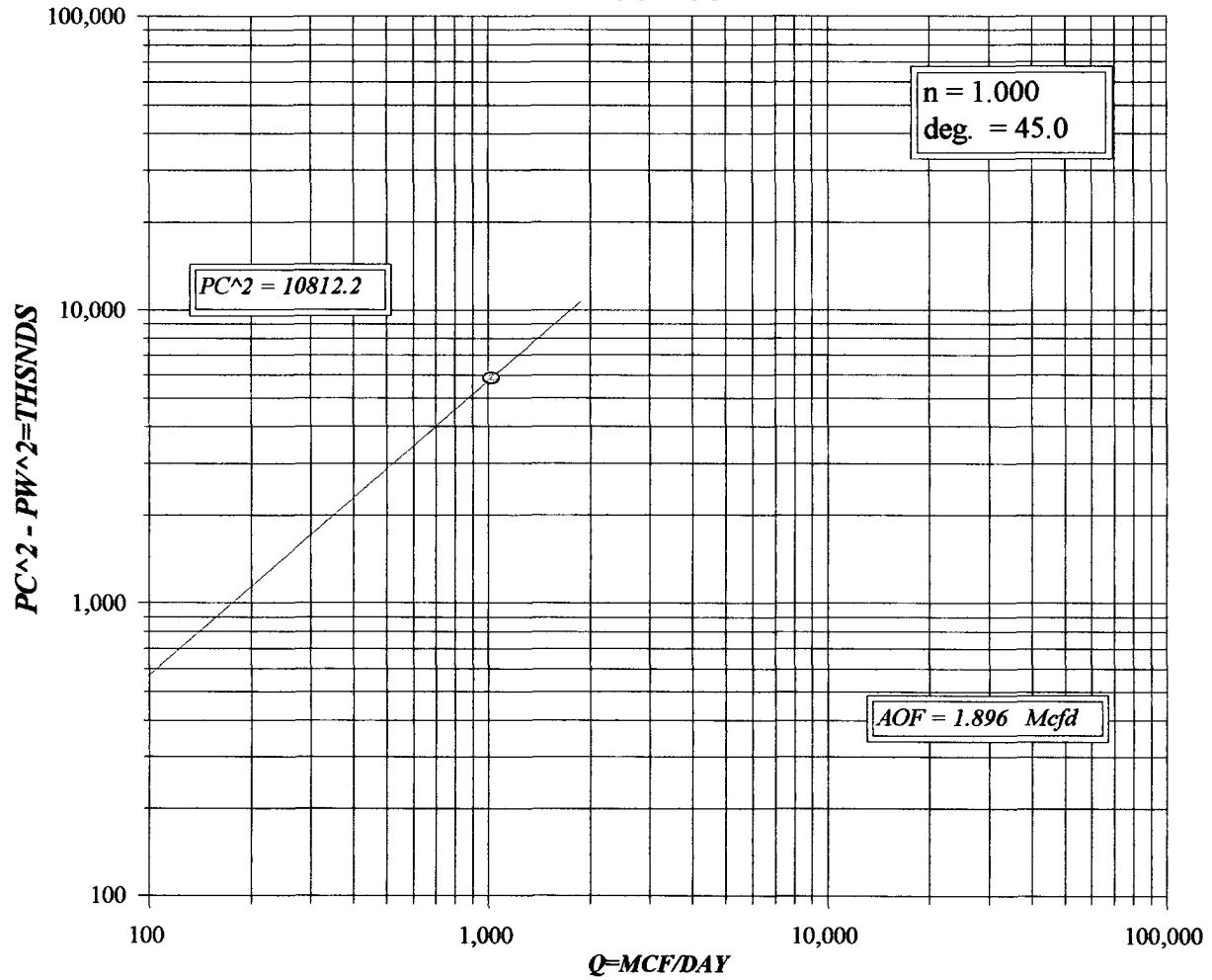
Form C-122
Revised October, 1999

30-015-32808

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator UNIT PET. CO.				Lease or Unit Name HARROUN COM			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12/17/03		Well No. 2	
Completion Date 10/4/03		Total Depth 12720		Plug Back TD 12672		Elevation 3027 GL	
Csg. Size 4 1/2	Wt. 13.5	d 3.92	Set At 12720	Perforations: From: 12105 To: 12250			County EDDY
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11900	Perforations: From: To:			Pool DUBLIN RANCH - MORROW GAS
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11900		Formation MORROW	
Producing Thru TUBING		Reservoir Temp. 202		Mean Annual Temp. 60		Baro. Press.-P _a 13.2	
Connection SALES							
L 11900	H 11900	Gg 0.5789	%CO ₂ 1.784	%N ₂ 0.2889	%H ₂ S	Prover	Meter Run 2.067
						Taps FLG	
FLOW DATA				TUBING DATA		CASING DATA	
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.
SI						3275	
1	2.067 X 1.125		600	43	70	2200	
2							
3							
4							
5							
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							1030
2	TOTAL	FLOW	METER				
3							
4							
5							
No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcf bbl.		
1					A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.		
2					Specific Gravity Separator Gas 0.5789 XXXXXXXX		
3	TOTAL	FLOW	METER		Specific Gravity Flowing Fluid XXXXXX		
4					Critical Pressure 677 P.S.I.A. P.S.I.A.		
5					Critical Temperature 353 R. R		
P _c 3288.2 P _{c2} 10812.2							
No.	P _t ²	P _w	P _w ²	P _c ² -P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.841}{1.841 - 1.896} = 1.481$		
1		2222.5	4939.4	5872.8			
2							
3							
4							
5							
				AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.896$			
Absolute Open Flow 1.896				Mcf @ 15.025		Angle of Slope (°): 45	
				Slope n:		1	
Remarks:							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: BM	

UNIT PET. CO.
HARROUN COM #2



COMPANY : UNIT PET.CO.		LEASE : HARROUN COM		WELL NO. : 2		Pc = 3288.2		Pc2 = 10812.2	
UNIT : B		SECTION : 33		TOWNSHIP : 22S		P12 = 4898.3		Pw = 2222.5	
L : 11900	H : 11900	L/H : 1	G/GMX : 0.579	DATE : 01/00/00		0.0		#DIV/0!	
%CO2 : 1.784	%N2 : 0.2889	H2S : 8197.0	RANGE : 28E		0.0		#DIV/0!		
d : 1.995	Fr : 0.018183					0.0		#DIV/0!	
VOL 1 : 1030		PSIA 1 : 2213.2		RESV.TEMP : 202.0		Pc2-Pw2 = 5872.8		Pw2 = 4939.4	
VOL 2 :		PSIA 2 :		SHUT-IN PRE : 3288.2		#DIV/0!		#DIV/0!	
VOL 3 :		PSIA 3 :				#DIV/0!		#DIV/0!	
VOL 4 :		PSIA 4 :				#DIV/0!		#DIV/0!	
PCR : 679		TCR : 348				n = 1.000			
LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST		2ND		1ST		2ND	
1	QM	1.030	1.030	0.000	0.000	0.000	0.000	0.000	0.000
2	TW	534	534	534	534	534	534	534	534
3	Ts	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
4	T	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
5	PR (est)	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Z(est)	0.849	0.850	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	TZ	507.4	508.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	GH/TZ	16.153	16.135	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	eS	1.833	1.831	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10	i-e-S	0.454	0.454	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11	Pt	2213.2	2213.2	0.0	0.0	0.0	0.0	0.0	0.0
12	Pt2 /1000	4898.3	4898.3	0.0	0.0	0.0	0.0	0.0	0.0
13	Fr	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183
14	Fc=FrTZ	9.227	9.238	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	FcQm	9.50	9.51	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	L/H(FcQm)2	90.3	90.5	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
17	Fw	41.0362	41.096425	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
18	Pw2	4939.3	4939.4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19	Ps2	9051.9	9045.7	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20	Ps	3008.6	3007.6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21	P	2610.9	2610.4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Pr	3.85	3.84	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23	Tr	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72
24	Z	0.850	0.850	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
FORM C122-D									