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See Rule 401 & Rule 1122

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

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Form C-122
Revised October, 1999

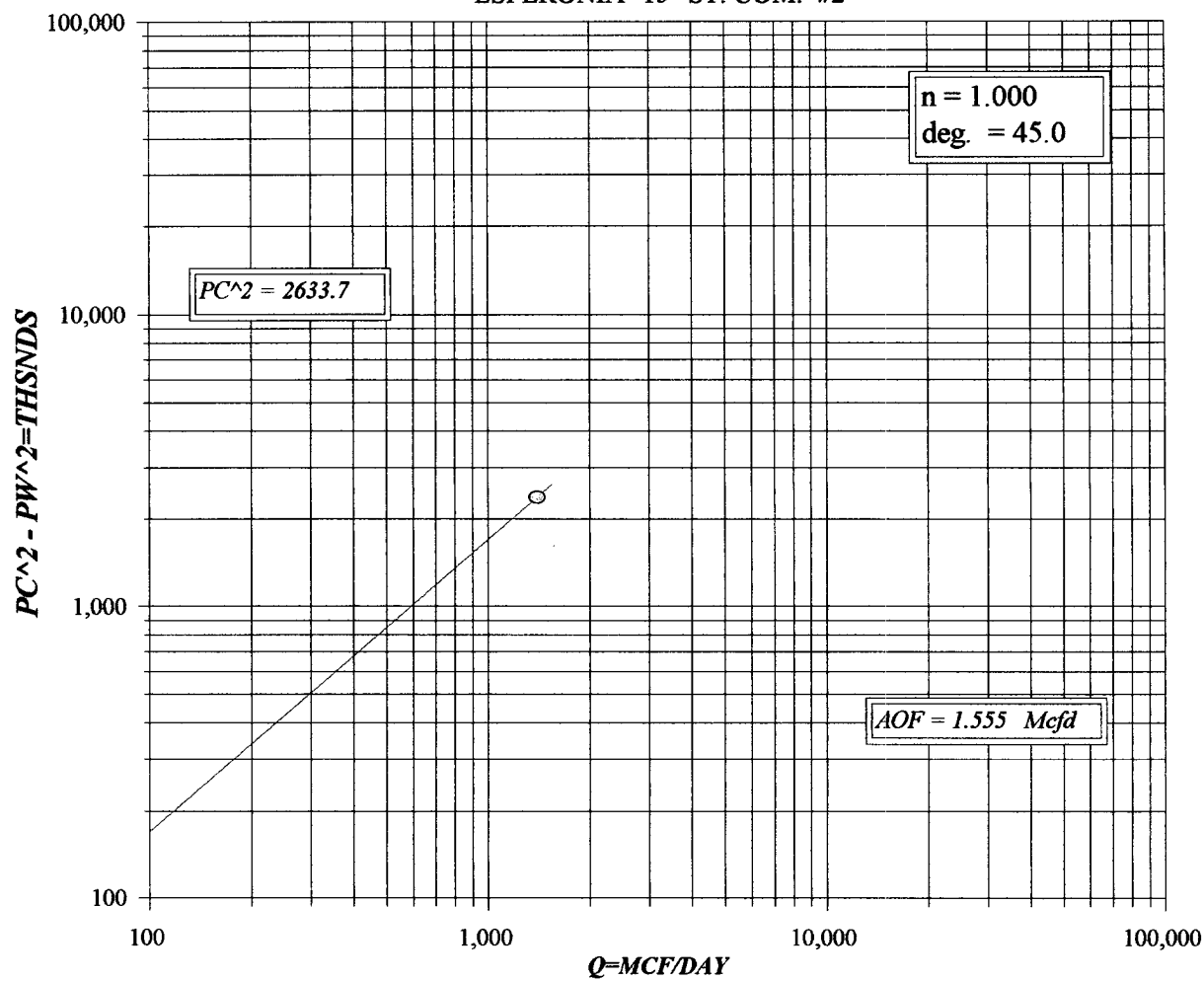
JAN 07 700A

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

OCD-ARTESIA 30-015-32718

Operator MEWBOURNE OIL				Lease or Unit Name ESPERANZA" ST. COM.					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date		Well No. 2	
Completion Date 8/30/03		Total Depth 11835		Plug Back TD 11517		Elevation 3302		Unit Ltr - Sec - TWP - Rge B 15 21S 27E	
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 11835	Perforations: From: 11307 To: 11460		County EDDY			
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11213	Perforations: From: To:		Pool MORROW			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11190		Formation MORROW			
Producing Thru TUBING		Reservoir Temp. 168		Mean Annual Temp. 60		Baro. Press.-P _a 13.2		Connection SALES	
L 11213	H 11213	Gg 0.623	%CO ₂ 3.375	%N ₂ 1.463	%H ₂ S	Prover	Meter Run 3.067	Taps FLG	
FLOW DATA				TUBING DATA			CASING DATA		Duration of Flow
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.	Press p.s.i.g.	
SI						500			
1	3.067 X 1.250		460	30	74	460			24 HRS
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								1400	
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		0.623		XXXXXXX
3	TOTAL	FLOW	METER		Specific Gravity Flowing Fluid		XXXXXX		
4					Critical Pressure		681		P.S.I.A. P.S.I.A.
5					Critical Temperature		356		R. R.
P _c 513.2		P _{c2} 2633.7							
No.	P _t ²	P _w	P _w ²	P _c ² -P _w ²	(1) $P_c^2 = \frac{1.111}{P_c^2 - P_w^2}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.111$				
1		512.3	262.4	2371.3	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.555$				
2									
3									
4									
5									
Absolute Open Flow		1.555		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			

MEWBOURNE OIL
ESPERONIA "15" ST. COM. #2



```

|||      Pc =    513.2      Pc2 =    2633.7  "||
|||
|||      Pt2 =    233.5      Pw =     512.3  "||
|||      0.0              #DIV/0!  "||
|||      0.0              #DIV/0!  "||
|||      0.0              #DIV/0!  "||

```

VOL 1 :	1400	PSIA 1 :	483.2	RESV.TEMP	188.0
VOL 2 :		PSIA 2 :			
VOL 3 :		PSIA 3 :		SHUT-IN PRESS	513.2
VOL 4 :		PSIA 4 :			

Pc2-Pw2=	2371.3	Pw2 =	262.4
#DIV/0!		#DIV/0!	
#DIV/0!		#DIV/0!	
#DIV/0!		#DIV/0!	

PCR : 681
TCR : 356

n =	1.000	*
		*
		*

```

Pc2/(Pc2-Pw2)=      1.111
#DIV/0!
#DIV/0!
#DIV/0!

```

```
[Pc2/Pc2.Pw2]n =      1.111
#DIV/0!
#DIV/0!
#DIV/0!
```

```

AOF= Q      1.555
#DIV/0!
#DIV/0!
#DIV/0!

```

LINE	RATE 1		RATE 2		RATE 3		RATE 4		PC2/(PC2-Pw2) = 1.111	#DIV/0!	#DIV/0!	#DIV/0!
	'1ST	'2ND	'1ST	'2ND	'1ST	'2ND	'1ST	'2ND				
1 QM	1.400	1.400	0.000	0.000	0.000	0.000	0.000	0.000				
2 TW	534	534	534	534	534	534	534	534				
3 Ts	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	[Pc2/Pc2-Pw2]n = 1.111	#DIV/0!	#DIV/0!	#DIV/0!
4 T	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0		#DIV/0!	#DIV/0!	#DIV/0!
PR (est)	0.71		0.00		0.00		0.00			#DIV/0!	#DIV/0!	#DIV/0!
5 Z(est)	0.928	0.919	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
6 TZ	548.3	542.9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
7 GH/TZ	14.950	15.097	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	AOE = Q	#DIV/0!	#DIV/0!	#DIV/0!
8 eS	1.752	1.761	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!
9 I-e-S	0.429	0.432	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!
10 Pt	483.2	483.2	0.0	0.0	0.0	0.0	0.0	0.0				
11 Pt2 /1000	233.5	233.5	0.0	0.0	0.0	0.0	0.0	0.0				
12 Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763				
13 Fc=FrTZ	5.901	5.844	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
14 FcQm	8.26	8.18	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
15 L/H(FcQm)2	68.3	66.9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
16 Fw	29.292171	28.934303	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
17 Pw2	262.8	262.4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
18 Ps2	460.3	462.2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
19 Ps	678.5	679.9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
20 P	580.8	581.5	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
21 Pr	0.85	0.85	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
22 Tr	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66				
23 Z	0.919	0.919	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				FORM C122-D

FORM C122-D