

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

Form C-12
Revised 9-

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7/10/92	
Company Meridian Oil Co.				Connection None	
Pool Rhodes Yates SR Gas				Formation Yates	
Completion Date 7/10/92		Total Depth 3131'		Plug Back TD 3953'	
				Elevation 2970.7 GR	
Farm or Lease Name C.W. Shepherd Fed				Well No. 10	
Csg. Size 4-1/2	Wt. 11.6	d 3131'	Set At 3131'	Perforations: From 2861 To 2994	
Thq. Size 2-3/8	Wt. 4.7	d 2846'	Set At 2846'	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None	
Producing Thru Tubing		Reservoir Temp. °F 92 @ 2900		Mean Annual Temp. °F 68	
				Baro. Press. - P _a 13.2	
L 2927		H 2927	G _g .664	% CO ₂ 1.8	% N ₂ 1.48
				% H ₂ S 0	Prover 2.0 Orifice
				Meter Run Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. PSI	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI				50 PSI Meter			236	70			24 Hr.
1.	2.0		.500	10		76	228	73			60 Min
2.	2.0		.500	24		81	220	76			60 Min
3.	2.0		.750	16		82	209	77			60 Min
4.	2.0		.750	30		82	188	76			60 Min
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	4.27		22.7	.9850	1.2272	1.0059	118
2	4.27		36.7	.9804	1.2272	1.0057	190
3	9.43		28.7	.9795	1.2272	1.0056	327
4	9.43		43.2	.9795	1.2272	1.0056	493
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	None	Mcf/bbl
1.	.03	536	1.44	.988	A.P.I. Gravity of Liquid Hydrocarbons	None	D ₆
2.	.05	541	1.46	.989	Specific Gravity Separator Gas	.664	X X X X X X X X
3.	.04	542	1.46	.989	Specific Gravity Flowing Fluid	X X X X X	
4.	.06	542	1.46	.989	Critical Pressure	675	P.S.I.A.
5.					Critical Temperature	371	R

P _c	249	P _c ²	62
NO.	P _i ²	P _w	P _w ²
1		241	58
2		234	55
3		224	50
4		207	43
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.2531$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.8403$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1399$

Absolute Open Flow 1399 Mcfd @ 15.025

Angle of Slope θ 48.5

Slope, n .885

Remarks: _____

Approved By Commission: _____ Conducted By: Kuykendall Bottom Hole Calculated By: John G. Smith Checked By: Bill Pyle

Company MEF IAN OIL CO.
Well SHEPHERD FED NO. 10
Location
County LEA
Date JULY 10, 1992

1000

100

10

$P_C^2 - P_W^2$

10

MCFD

100

1000

10,000

ABSOLUTE OPEN FLOW = 1399 MCFD

