

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

CONFIDENTIAL

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Meridian Oil Company						Lease or Unit Name C.C. Cagle					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 09-30-91		Well No. 4			
Completion Date 09-15-91		Total Depth 3100		Plug Back TD 3057		Elevation 2991.1' GR		Unit Ltr. - Sec. - TWP - Rge. 3 - 26S - 37E			
Csg. Size 4 1/2	Wt. 11.6	d 	Set At 3100	Perforations: From: 2752 To: 2957				County Lea			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 2718	Perforations: From: To: 				Pool Jalmat Tansill Phodes Yates Seven			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At None		Formation Yates			
Producing Thru Tubing		Reservoir Temp. °F 102		Mean Annual Temp. °F 60		Baro. Press - P _a		Connection vented			
L 2718	H 2718	Gg .679	% CO ₂ 1.32	% N ₂ 1.55	% H ₂ S	Prover		Meter Run 2.067	Taps flange		

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.		Temp. °F
SI							205		-		24 hrs.
1.	2	X	.500	25	13.00	60	195		-		45 mins.
2.	2	X	1.000	25	4.00	60	180		-		45 mins.
3.	2	X	1.000	25	15.00	60	173		-		45 mins.
4.	2	X	1.000	25	60.00	60	160		-		45 mins.
5.											

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.	1.189	22.28	38.2	1.000	1.214	1.004	32
2.	4.946	12.36	38.2	1.000	1.214	1.004	75
3.	4.946	23.94	38.2	1.000	1.214	1.004	144
4.	4.946	47.88	38.2	1.000	1.214	1.004	289
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio DRY GAS Mcf/bbl.	
1.	.05	520	1.37	.992	A.P. I. Gravity of Liquid Hydrocarbons DRY Deg.	
2.	.05	520	1.37	.992	Specific Gravity Separator Gas .679	XXXXXXXXXX
3.	.05	520	1.37	.992	Specific Gravity Flowing Fluid XXXXXX	
4.	.05	520	1.37	.992	Critical Pressure *672 P.S.I.A.	P.S.I.A.
5.					Critical Temperature *378 R	R

P_c **218.2** P_c² **47.6**

NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²
1.		208.2	43.4	4.3
2.		193.4	37.4	10.2
3.		186.8	34.9	12.7
4.		175.9	30.9	16.7
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.850$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.850$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .824$

Absolute Open Flow 824 Mcfd @ 15.025	Angle of Slope θ 45	Slope, n 1.000
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Remarks: ***=corrected to 1.32% CO₂ & 1.55% N₂**

NO FLUID PRODUCED DURING TEST

Approved By Division	Conducted By: Pro Well Testers	Calculated By: BM	Checked By: bM
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