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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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MERIDIAN OIL, INC.						Lease or Unit Name SHELL STATE Com "B" # 1					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-12-93		Well No. 1			
Completion Date 8/30/93		Total Depth 3596		Plug Back TD 3556		Elevation 3537' GR		Unit Ltr. - Sec. - TWP - Rge. M 32-20- 37			
Csg. Size 4 1/2	Wt. 11.6	d 	Set At 3596	Perforations: From: 3307 To: 3487				County LEA			
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 3442	Perforations: From: To: 				Pool EUMONT			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At NONE		Formation QUEEN			
Producing Thru CSG.		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press - P _a		Connection SID RICHARDSON			
L 3307	H 3307	Gg .699	% CO ₂ 4.24	% N ₂ 2.45	% H ₂ S	Prover		Meter Run 4.026	Taps FLG.		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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						11		83		24 HRS
1.	4 X .750		23	2.89	73	11		82		1 HR
2.	4 X .750		23	33.60	72	11		77		1 HR
3.	4 X .750		24	46.20	70	11		56		1 HR
4.	4 X .750		24	46.20	70	11		38		1 HR
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	2.661	10.23	36.2	.9877	1.196	1.001	32
2.	2.661	34.88	36.2	.9887	1.196	1.001	110
3.	2.661	41.46	37.2	.9905	1.196	1.001	131
4.	2.661	41.46	37.2	.9905	1.196	1.001	131
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf/bbl.
1.	.05	533	1.39	.999	A.P. I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2.	.05	532	1.39	.999	Specific Gravity Separator Gas	.699	XXXXXXXXXX
3.	.05	530	1.39	.999	Specific Gravity Flowing Fluid	XXXXXX	
4.	.05	530	1.39	.999	Critical Pressure	*683	P.S.I.A.
5.					Critical Temperature	*381	R

P _c 96.2		P _c ² 9.25	
NO.	P _i ²	P _w	P _w ²
1.	**	95.2	9.06
2.	**	90.2	8.14
3.	**	69.2	4.79
4.	**	51.2	2.62
5.			

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = 48.68$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .222$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6.947$$

Absolute Open Flow	222	Mcf/d @ 15.025	Angle of Slope θ	63.5	Slope, n	.499
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Remarks: ** FRICTION NIL FOR ANNULAR FLOW

*=CORRECTED TO 4.24% CO₂. & 2.45% N₂ NO FLUID PRODUCED

Approved By Division	Conducted By: WEST-TEST, INC.	Calculated By: BM	Checked By: BM
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