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State of New Mexico
Energy, Minerals and Natural Resources Department

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Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

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

AUG 04 '94

07-25-94
ARTESIA, OFFICE

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator HARVEY E. YATES COMPANY						Lease or Unit Name CEDAR 32 COM.					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7-15-94		Well No. 1			
Completion Date 7-13-94		Total Depth 11900		Plug Back TD 11842		Elevation 3726 G.L.		Unit Ltr. - Sec. - TWP - Rge. 32			
Csg. Size 5 1/2"	Wt. 17#	d 	Set At 11900	Perforations: From: 11680 To: 11692				County EDDY			
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 11438	Perforations: From: To: 				Pool <i>E Cedar Lake Morrow</i>			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 11230		Formation MORROW			
Producing Thru TBG		Reservoir Temp. °F 		Mean Annual Temp. °F 190.9 @ 11686		Baro. Press - P _a 13.2		Connection NONE			
L 11686	H 11686	Gg .689	% CO ₂ .53	% N ₂ .38	% H ₂ S 	Prover 		Meter Run 4"		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						2099		PKR.		48 HOURS
1.	4 X 2.000		580	8.00	118	1980		"		1 HOUR
2.	4 X 2.000		580	12.00	96	1959		"		1 HOUR
3.	4 X 2.000		580	28.00	102	1877		"		1 HOUR
4.	4 X 2.000		590	40.00	97	1830		"		1 HOUR
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.	19.81	68.89	593.2	.9485	1.207	1.047	1,636
2.	19.81	84.37	593.2	.9671	1.207	1.055	2,058
3.	19.81	128.88	593.2	.9619	1.207	1.054	3,124
4.	19.81	155.33	603.2	.9662	1.207	1.056	3,790
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.88	578	1.50	.913	A.P.I. Gravity of Liquid Hydrocarbons 55.9 @ 60°	Deg.
2.	.88	556	1.44	.898	Specific Gravity Separator Gas .686	XXXXXXXXXX
3.	.88	562	1.45	.901	Specific Gravity Flowing Fluid .7591	XXXXXX G MIX= .732
4.	.90	557	1.44	.896	Critical Pressure 669	P.S.I.A. 668
5.					Critical Temperature 385	R 401

P _c 2168.1 P _c ² 4700.7				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		2057.0	4231.2	469.5
2.		2085.0	4347.2	353.5
3.		2050.8	4205.8	494.9
4.		2031.6	4127.4	573.3
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 8.199$

2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8.199$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 31.074$

Absolute Open Flow **31,074** Mcfd @ 15.025

Angle of Slope θ **45**

Slope, n **1.000**

Remarks: ***=BHP'S EXTRAPOLATED TO THIS DEPTH**

WELL MADE 7.0 BBLs 55.9 API GR. CONDENSATE & 8.00 BBLs H2O

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