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See Rule 401 & Rule 1122

State of New Mexico
geology, 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 ENRON OIL & GAS					Lease or Unit Name EMPIRE 5 STATE COM				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9-24-96		Well No. 1		
Completion Date 8-28-96		Total Depth 10,437		Plug Back TD 10,258		Elevation 3640		Unit Ltr. - Sec. - TWP - Rge. 5-18S-28E	
Csg. Size 5 1/2	Wt. 17	d 4.92	Set At 10,438	Perforations: From: 10,222 To: 10,258			County DEDDY		
Tbg. Size 3 1/2	Wt. 9.3	d 2.992	Set At 10,123	Perforations: From: _____ To: OCT 30 1996			Pool North Illinois Camp		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At 10,123			Formation MORROW		
Producing Thru tbg		Reservoir Temp. °F 175.2		Mean Annual Temp. °F 60°		Baro. Press - P. 19.2		Connection SALES	
L 10,123	H 10,123	Gg .650	% CO ₂ .52	% N ₂ .73	% H ₂ S -0-	Pressure 10-2	Meter Run 4.026	Taps 8lg.	

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.	
SI						1577		PKR.	
1.	4.026 X 2.750		453.8	12.5	64°	1552		"	60 min
2.	4.026 X 2.750		522.2	24.0	64°	1504		"	60 min
3.	4.026 X 2.750		487.4	42.3	64°	1459		"	60 min
4.	4.026 X 2.750		821.4	74.4	64°	1215		"	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.	42.28	76.40	467	.9962	1.240	1.052	4197
2.	42.28	113.35	535.4	.9962	1.240	1.052	6227
3.	42.28	145.51	500.6	.9962	1.240	1.052	7994
4.	42.28	249.18	834.6	.9962	1.240	1.052	13690
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.778	524	1.41	.903	77.096	
2.	.778	524	1.41	.903	63.1	Deg.
3.	.778	524	1.41	.903	.650	XXXXXXXXXX
4.	.778	524	1.41	.903	63.10	63.10
5.					673	672
					371	381

NO.	P _i	P _w	P _w ²	P _c ² - P _w ²
1.	2449.9	1585.5	2513.9	14.8
2.	2301.9	1563.1	2443.3	85.4
3.	2167.4	1549.5	2401.0	127.7
4.	1508.5	1484.8	2204.5	324.2
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.799$

2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.291$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 45.059$

Absolute Open Flow	45.059	Mcf/d @ 15.025	Angle of Slope Θ	59.7	Slope, n	.580
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Remarks: **WELL MADE 17.0 BBLs CONDENSATE @ 63.10 API GRAVITY**

Approved By Division	Conducted By: PRO WELL TESTERS	Calculated By: MB	Checked By: KS
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Betty Gildon
Regulatory Analyst
Betty Gildon

Enron Oil & Gas Company (915) 686-3714
10/29/96