

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4-POINT ☒ Initial ☐ Annual ☐ Special				Test Date 2-28-86	
Company NEARBURG PRODUCING COMPANY			Connection TO AIR		
Pool Wildcat Devonian			Formation MORROW		Unit
Completion Date 2-27-86		Total Depth 14590'		Plug Back TD 13465'	Elevation 0
Farm or Lease Name FEDERAL LS COM					
Coq. Size 5.5000	Wt. 17.00	d	Set At 14500'	Perforations: From 13055' To 13094'	
Thq. Size 2.8750	Wt. 6.50	d	Set At 13053'	Perforations: From 0 To 0	
Type Well - Single - Blindhead - G.G. or G.O. Multiple SINGLE				Packer Set At 12969'	
Producing Thru TUBING		Reservoir Temp. °F 248# 13075'		Mean Annual Temp. °F 60°	
				Baro. Press. - P _a 13.2	
L 13075'	H 13075'	G _g 0.671	% CO ₂ 0.43	% N ₂ 0.65	% H ₂ S 0
				Prover 0	Meter Run 4.0
				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							4444		6806	248	24.0
1.	4.03	X	1.250	360	2.2	92	4190	62	6514	248	1.0
2.	4.03	X	1.250	518	7.8	83	3800	62	6177	248	1.0
3.	4.03	X	1.250	533	16.0	64	3570	62	5703	248	1.0
4.	4.03	X	1.250	578	36.0	66	3260	62	5383	248	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.47	28.98	373.2	0.9706	1.2204	1.0333	265
2	7.47	64.53	531.2	0.9786	1.2204	1.0497	604
3	7.47	93.48	546.2	0.9962	1.2204	1.0583	898
4	7.47	145.89	591.2	0.9943	1.2204	1.0624	1405
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.56	552	1.46	0.937	9.353	58.0	0.671	XXXXXX	670	378
2	0.79	543	1.44	0.907				XXXXXX		
3	0.82	524	1.39	0.893						
4	0.88	526	1.39	0.886						
5										

P _c 4762.3 P _c ² 22679			
NO.	P _i ²	P _w	P _w ²
1		4499	20245
2		4198	17625
3		3779	14279
4		3500	12248
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1741$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3054$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.1741$

Absolute Open Flow	3054	Mcfd @ 15.025	Angle of Slope	45.0	Slope, n	1.000
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Remarks: **CONFIDENTIAL**

Approved By Division	Conducted By:	Calculated By:	Checked By:
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