

SEP - 2 1986

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
O.C.B.

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3/28/86		APPROVAL OFFICE	
Company Exxon Co. U.S.A.		Connection None			
Pool S. P. ...		Formation Morrow		Unit	
Completion Date 3/24/86		Total Depth 11,914		Plug Back TD 11,720	
				Elevation 3248	
Csg. Size 5		Wt. 15 & 18		Set At 11,906	
Tbg. Size 2 7/8		Wt. 6.5		Set At 11,100	
				Perforations: From 11,344 To 11,559	
				Perforations: From Open To End	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 11,100	
Producing Thru Tbg.		Reservoir Temp. °F 185 @ 11,100		Mean Annual Temp. °F 60	
				Base. Press. - P _g 13.2	
L 11,100		H 11,100		Cg .577	
				% CO ₂ 1.118	
				% N ₂ .182	
				% H ₂ S	
				Prover	
				Meter Run 3.826	
				Taps Flg.	

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
1.	3.826 X 1.500			480	10	88	3815				
2.	3.826 X 1.500			480	21	80	3529				1 Hr.
3.	3.826 X 1.500			480	33	93	3415				1 Hr.
4.	3.826 X 1.500			480	47	95	3309				1 Hr.
5.							3182				1 Hr.

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, Mc/d
1	10.88	70.23	493.2	.9741	1.316	1.033	1012
2	10.88	101.77	493.2	.9813	1.316	1.034	1479
3	10.88	127.58	493.2	.9697	1.316	1.031	1826
4	10.88	152.25	493.2	.9680	1.316	1.031	2176
5							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	_____ Mcf/bbl.
1	.73	548	1.57	.938	Dry	
2	.73	540	1.55	.935	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
3	.73	553	1.55	.940	Specific Gravity Separator Gas .577	XXXXXXXXXX
4	.73	555	1.55	.941	Specific Gravity Flowing Fluid XXXXX	
5					Critical Pressure 676	P.S.I.A. _____
					Critical Temperature 349	P.S.I.A. _____

NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²
1	3544.6	12564.2	2090.9	
2	3485.7	12150.1	2505.0	
3	3331.6	11099.6	3555.5	
4	3204.0	10265.6	4389.5	
5				

(1) $\frac{P_i^2}{P_i^2 - P_w^2} = 3.339$

AOF = Q $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 7.265$

(2) $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 3.339$

Absolute Open Flow	7,265	Mcf @ 15.025	Angle of Slope	45	Slope, n	1.00
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Remarks: Made no fluid during test.

Approved By Division	Conducted By: Duke Services, Inc.	Calculated By: R. Reston	Checked By:
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