

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 02/22/96		API NO. 30-015-28633	
Company KERR-MCGEE CORPORATION				Connection MARATHON			LC - 063246	
Pool Indian Basin Morrow Gas				Formation MORROW			Unit SW-211	
Completion Date 1-4-96		Total Depth 9750		Plug Back TD 9740		Elevation 3830 RKB		Farm or Lease Name WINSTON GAS COM
Ceq. Size 7"	Wt. 26#	d 6.276	Set At 9750	Perforations: From 9216 To 9494			Well No. 2	
Tbg. Size 2-7/8	Wt. 6.5	d 2.441	Set At 9175	Perforations: From To			Unit Sec. Twp. Rge. B S31 T21S R24E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE					Packer Set At 9099		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 167# 9355		Mean Annual Temp. °F 74		Baro. Press. - P _a 13.1		State NEW MEXICO
L 9355	H 9355	G _q .6026	% CO ₂ .704	% N ₂ .457	% H ₂ S	Prover	Meter Run 3.068	Taps FLG.

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO.	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					1743	74			24
1.	3.068 X 1.750	310	2	67	1555	74			1
2.	3.068 X 1.750	317	8	74	1453	74			1
3.	3.068 X 1.750	322	18	66	1225	74			1
4.	3.068 X 1.750	340	32	65	825	74			1
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	15.61	25.42	323.1	.9933	1.269	1.030	515
2	15.61	51.39	330.1	.9868	1.269	1.030	1035
3	15.61	77.66	335.1	.9943	1.269	1.031	1578
4	15.61	106.30	353.1	.9952	1.269	1.033	2163
5.							

NO.	R _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	343	Mcft/bbl.
1	.48	527	1.43	.942	A.P.I. Gravity of Liquid Hydrocarbons	68.0	Deg.
2	.49	534	1.45	.943	Specific Gravity Separator Gas	.6029	XXXXXXXXXX
3	.50	526	1.43	.940	Specific Gravity Flowing Fluid	XXXXXX	.623
4	.53	525	1.43	.937	Critical Pressure	672	P.S.I.A. 671 P.S.I.A.
5.					Critical Temperature	368	R 376 R

NO	P _t ²	P _w	P _w ²	P _e ² - P _w ²
1			2461.6	622.3
2			2160.1	923.8
3			1558.2	1525.7
4			1158.3	1925.6
5				

(1) $\frac{P_e^2}{P_e^2 - P_w^2} =$ _____

(2) $\frac{P_e^2}{P_e^2 - P_w^2} =$ _____

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

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OIL CON. DIV.

Absolute Open Flow	3,300	Mcfd @ 15.025	Angle of Slope @	45.0	Slope, n	1.000
Remarks:						
Approved By Division						
Conducted By:		Calculated By:		Checked By:		
THURMOND-MCGLOTHLIN, INC.		IBM COMPUTER		J. W. CHISUM		