

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-2-79							
Company Dugan Production Corp.				Connection							
Pool Basin				Formation Dakota							
Completion Date 10-24-79		Total Depth 6570'		Plug Back TD 6027' GL							
Elevation 6027' GL		Farm or Lease Name Mucho Deal									
Csg. Size 4-1/2"	Wt. 10.5#	Set At 6571' RKB	Perforations: From 6328 To 6429		Well No. #1E						
Tbg. Size 1-1/2"	Wt. 2.9 & 2.75	Set At 6415' RKB	Perforations: From Open To End		Unit Sec. Twp. Rge. K 14 30N 14W						
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single - Gas				Packer Set At							
Producing Thru tbg				Baro. Press. - P _a							
Reservoir Temp. °F #				Mean Annual Temp. °F							
L H Gg .65 % CO ₂ % N ₂ % H ₂ S				Prover Meter Run Taps							
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	Duration of Flow
SI							1730		1755		7 days
1.											
2.											
3.	5/8" Pos Choke						88	66	600		3 hrs
4.											
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											
2											
3	8.5417		100	.9943	.9608	1.007	822				
4											
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2					Specific Gravity Separator Gas _____ XXXXXX						
3					Specific Gravity Flowing Fluid _____ XXXXX						
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.						
5					Critical Temperature _____ R _____ H						
P _c 1767 P _c ² 3122289					(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.1363$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.1006$						
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 906$						
1											
2											
3											
4											
5											
Absolute Open Flow 905 Mcfd @ 15.025					Angle of Slope Φ					Slope, $\alpha = 75$	
Remarks:											
Approved By Division			Conducted By			Calculated By			Checked By		

