

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator LOUIS DREYFUS				Lease or Unit Name RANCO 16				RANCH "16" ST.			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1/29/01		Well No. 1					
Completion Date		Total Depth		Plug Back TD 11565		Elevation 3352		Unit Ltr - Sec - TWP - Rge C 16 23S 26E			
Csg. Size 4 1/2	Wt. 13.5	d 3 7/8	Set At 11995	Perforations: From: 10431 To: 10445		County EDDY					
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10416	Perforations: From: To:		Pool Frontier Hills Strawn					
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 10372		Formation STRAWN					
Producing Thru TUBING		Reservoir Temp.-°F 178.2		Mean Annual Temp. °F 60		Baro. Press.-P _a 13.2		Connection SALES			
L 10416	H 10416	Gg 0.661	%CO ₂ 1.06	%N ₂ 0.679	%H ₂ S N/A	Prover N/A	Meter Run 3 068	Taps FLG			
FLOW DATA				TUBING DATA			CASING DATA				
No.	Prover Line Size	Orifice x 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						1700	N/A	PKR	N/A		
1	3.068 X 1.375		335	1.78	86	1690				1 HR.	
2	3.068 X 1.375		350	9.03	98	1680				1 HR.	
3	3.068 X 1.375		447	53.03	70	1570				1 HR.	
4	3.068 X 1.375		414	170.2	74	1300				1 HR.	
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									310		
2	GAS		VOLUMES	FROM	TOTAL	FLOW	METER		671		
3									1971		
4									3341		
5											
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio		104.883		Mcf/bbl.		
1					A.P.I. Gravity of Liquid Hydrocarbons		56.8		Deg.		
2	TOTAL	FLOW	METER		Specific Gravity Separator Gas		.661 / G.MIX = .689		XXXXXXX		
3					Specific Gravity Flowing Fluid		N/A XXXXX				
4					Critical Pressure		673 P.S.I.A.		672 P.S.I.A.		
5					Critical Temperature		374 R.		384 R		
P _c 1713.2 P _{c2} 2935.1											
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $P_c^2 = \frac{3.415}{P_c^2 - P_w^2}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.328$						
1	2900.9	1704.1	2903.8	31.2	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7.78$						
2	2866.9	1697.3	2880.7	54.4							
3	2506.5	1620.5	2626	309.1							
4	1724.5	1440.7	2075.6	859.5							
5											
Absolute Open Flow 7.78 Mcfd @ 15.025					Angle of Slope (°): 56.46			Slope n: 0.6882			
Remarks: * WELL MADE 2.5 BBLS OF 56.8 API GRAVITY CONDENSATE DURING TEST.											
Approved By Division:			Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER			Checked By: BM			