

NEW MEXICO OIL CONSERVATION COMMISSION MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 02-06-76	
Company Chace Oil Company				Connection None	
Pool Rusty Menefee				Formation La Ventana	
Completion Date 02-25-76		Total Depth 2040'		Plug Back TD 2018'	
Elevation 7020 GR		Farm or Lease Name Gulf Federal			
Well No.	3				
Unit	Sec.	Twp.	Rge.		
G	15	22	07		
County Sandoval				State New Mexico	
Type well - Single - gradient - G.G. or G.O. Multiple Single				Packer Set At None	
Producing Thru Tubing		Reservoir Temp. °F •		Mean Annual Temp. °F 12	
Baro. Press. - P _a 12		Prover •			
L	H	G _g	% CO ₂	% N ₂	% H ₂ S
		.626			

				.626				TUBING DATA		CASING DATA		Duration of Flow
FLOW DATA								Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
NO.	Prover 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								298		409		519
1.	2"		.125	291		56		291		300		411
2.	2"		.250	305		58		306		316		423
3.	2"		.4375	146		59		146		177		435
4.	2"		.500	61		60		60		139		447
5.	2"		.500	41		65		41		174		459

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, Mscf/d
1	.2648		305	1.004	1.264	1.027	144.5
2	1.087		318	1.002	1.264	1.028	150.0
3	5.408		158	1.001	1.264	1.015	601.2
4	4.259		72	1.000	1.264	1.017	302.1
5	4.259		53	.9952	1.264	1.005	286.1

NO.	P _t	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										
2										
3										
4										
5										

NO.	P _t	P _w	P _w ²	P _c ² - P _w ²
1	421	402	161.6	15.6
2	528	528	107.5	69.7
3	189	189	35.7	141.5
4	142	142	20.1	157.1
5	191	191	36.4	140.8

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{177.2}{140.8} \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.2159}{1}$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 347.8$$

Absolute Open Flow 348 Mscf/d @ 15.025 Angle of Slope 85

Remarks:	
Approved By Commission:	Conducted By:
Calculated By: Jim Andes-EPNG	Checked By: