

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-14-81		MAR 14 1981	
Company Gulf Oil Corp.				Connection Air		Well No. K	
Diamond Power Service (Indicated)				Diamond Miami Atoka		Form or Lease Name Callaway Federal	
Completion Date 1-29-81		Total Depth 9170		Flow Back To 9:27		Elevation 3558 CL	
Log. Size 5 1/2	Wt. 17815.5	d 9170	Set At 9170	Perforations: From 8939 To 8995		Well No. # 3	
Log. Size 2 3/8	Wt.	d 8884	Set At 8884	Perforations: From To		Unit Sec. Twp. Rge. KS 6 16s 28e	
Type Well - Single - Fractured - G.G. or G.O. Multiple Single Gas				Packer Set At 8884		County Eddy	
Producing thru Tubing		Reservoir Temp. °F 162 ^a 8884		Mean Annual Temp. °F 60 ^o		State New Mexico	
L 8884	H 8884	Gg 634	% CO ₂ .38	% N ₂ .44	% H ₂ S	Prover	Meter Run 4"
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Duration of Flow
SI						2140	72 hrs.
1.	4 X .500			600	5.0	68	1 hr.
2.	4 X .500			590	14.0	76	1 hr.
3.	4 X .500			605	26.0	85	1 hr.
4.	4 X .500			605	42.0	80	1 hr.
5.							
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mgd
1.	1.182	55.37	613.2	.9924	1.256	1.059	86
2.	1.182	91.90	603.2	.9850	1.256	1.054	142
3.	1.182	126.78	618.2	.9768	1.256	1.052	193
4.	1.182	161.13	618.2	.9813	1.256	1.053	247
5.							
NO.	F _r	Temp. °F	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>dry</u> Mcf/bbl.		
1.	.92	528	1.43	.892	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2.	.90	536	1.46	.901	Specific Gravity Separator Gas <u>.634</u> XXXXXXXXXX		
3.	.92	545	1.48	.904	Specific Gravity Flowing Fluid XXXXXX		
4.	.92	540	1.47	.902	Critical Pressure <u>670</u> P.S.I.A. F.S.I.A.		
5.					Critical Temperature <u>368</u> R R		
$P_c = 2153.2$ $P_w^2 = 4636.3$ (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.654$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.647$							
NO.	P _c	P _w	P _w ²	P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .407$		
1		1913.2	3660.5	975.8			
2		1773.4	3144.8	1491.5			
3		1563.5	2444.6	2191.7			
4		1353.8	1832.8	2803.5			
5							
Absolute Open Flow <u>407</u> Mcf @ 15.025				Angle of Slope ϕ <u>45.25°</u>		Slope, α <u>.992</u>	
Remarks:							
Approved By Consultant:		Conducted By:		Calculated By:		Checked By:	
		Davis Services Inc.		Rick Pagan			