

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

1-7 file
1-C 122 file
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-22-78		MAR 28 1978	
Company Gulf Oil Corp.				Connection Air		O.C.C. OFFICE	
Pool <i>Burles Well</i> Undesignated				Formation Morrow		Unit ARTESIA	
Completion Date 3-18-78		Total Depth 11478		Plug Back TD 11453		Elevation 3328	
Csq. Size 5 1/2		Wt. 17		Set At 11478		Perforations: From 11116 To 11237	
Tbg. Size 2 3/8		Wt. 4.7		Set At 11046		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11039		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 184 @ 11046		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 11046		H 11046		Gg .597		% CO ₂ .7	
				% N ₂ .65		% H ₂ S	
				Prover		Meter Run 4	
						Taps Flg.	

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	
SI							3276				72 hr
1.	4	X	2.000	510	12.0	90	3095				1 hr
2.	4	X	2.000	512	24.0	88	2925				1 hr
3.	4	X	2.000	510	48.0	75	2710				1 hr
4.	4	X	2.000	513	96.0	76	2275				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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	19.81	79.24	523.2	.9723	1.294	1.038	2050
2	19.81	112.27	525.2	.9741	1.294	1.039	2913
3	19.81	153.47	523.2	.9859	1.294	1.043	4177
4	19.81	224.76	526.2	.9850	1.294	1.041	5908
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
					209.000	
1.	.78	550	1.54	.929	A.P.I. Gravity of Liquid Hydrocarbons 52.5 @ 60	Deq.
2.	.78	548	1.53	.927	Specific Gravity Separator Gas .597	X X X X X X X X
3.	.78	535	1.49	.920	Specific Gravity Flowing Fluid X X X X X	.612
4.	.78	536	1.50	.922	Critical Pressure 671 P.S.I.A.	671 P.S.I.A.
5.					Critical Temperature 358 °R	362 °R

P _r 3289.2 P _c ² 10813.8				
NO.	P _r	P _w	P _w ²	P _r ² - P _w ²
1		3111.0	9678.3	1140.5
2		2985.3	8912.0	1906.8
3		2826.0	7986.3	2832.6
4		2511.4	6307.1	4511.7
5				

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = \underline{2.398}$$

$$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = \underline{11.505}$$

$$(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = \underline{1.947}$$

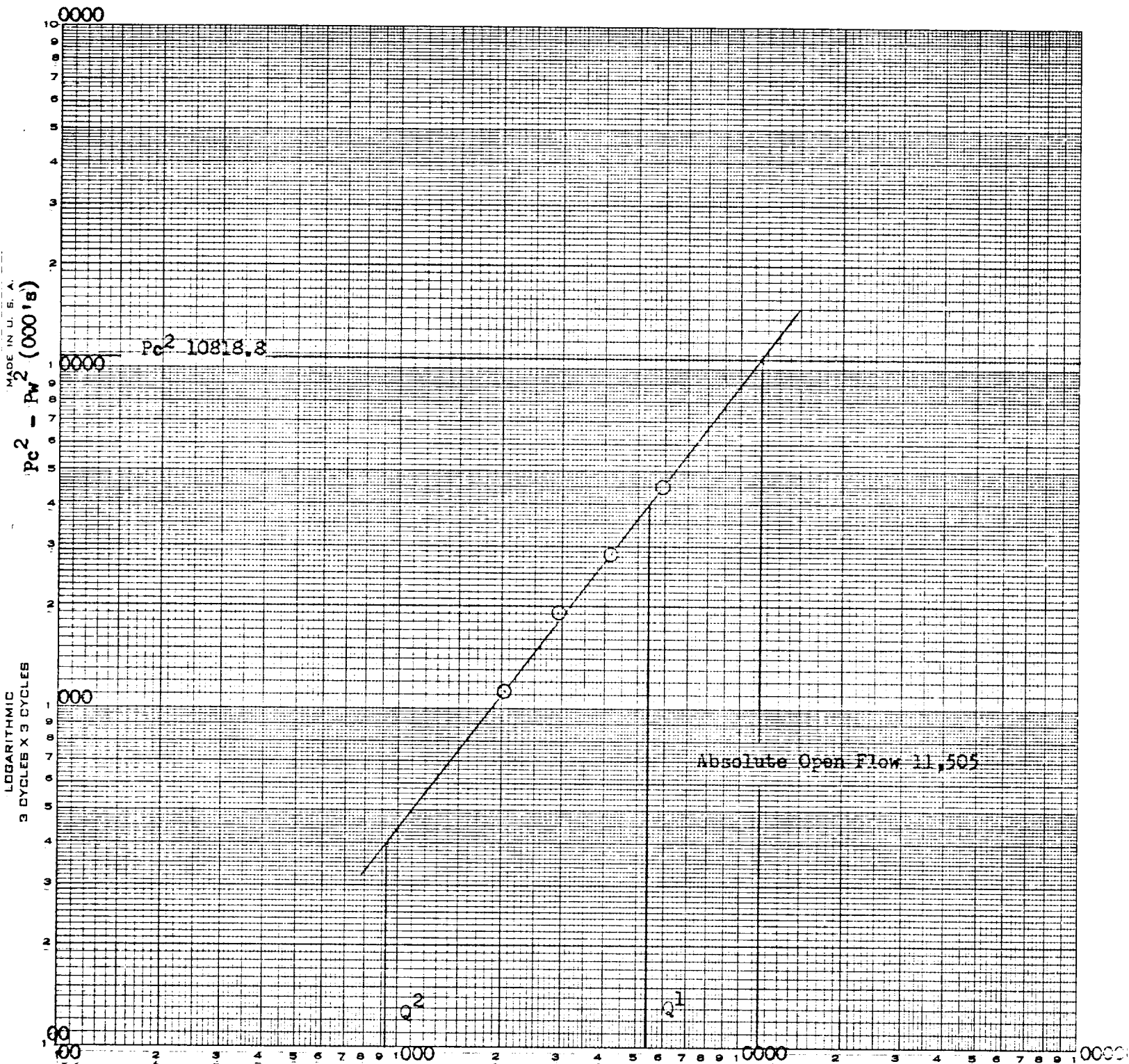
Posted 3/31/78

Absolute Open Flow 11,505 Mcfd @ 15.025	Angle of Slope 52.75°	Slope, n .762
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Remarks: **3 Bbls Distillate Produced During Test**

Approved By Commission:	Conducted By: John Davis	Calculated By: Larry Davis	Checked By:
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Company: Gulf Oil Corp.
 Lease: Cardenas Federal C
 Well NO: # 1
 Field: Undesignated
 County: Eddy
 Date: 3/22/78



$$\begin{aligned}
 Q^1 &= 5399; \text{ Log of } Q^1 = 3.7323133 \\
 Q^2 &= 930; \text{ Log of } Q^2 = 2.9694155 \\
 N &= .762
 \end{aligned}$$

CHROMATOGRAPH CALCULATIONS

Form 15-171 (Rev. 12-62)

Analysis No.

41337

Sample From Cardenas Fed. Com # 1				
Owner Gulf Oil Corporation			State NM	County Eddy
Location or Field Undesignated		Formation Morrow	Depth	From To
Date Secured 3-22-78	Secured By Sappington		Department	
Date Run 3-23-78	Run By Schooley		Checked By	
Source Press.	Bomb Press.	Source Temp.		Atmos. Temp.

SULPHUR - GRS. PER 100 cu. Ft.	Hydrogen Sulphide .66	Mercaptan .02	Total .68	Sweet
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COMPONENT	AREA	FACTOR	CORRECTED AREA	MOLE %	GPM	BTU	Sp. Gr.
Helium HE_2							
Hydrogen Sulphide H_2S							
Carbon Dioxide CO_2				.70			
Nitrogen N_2				.65			
Methane C_1				93.35			
Ethane C_2				3.79			
Propane C_3				1.12			
Iso Butane IC_4				.16			
Normal Butane C_4				.17			
Iso Pentane IC_5				.04			
Normal Pentane C_5				.02			
Hexane C_6							
Heptane C_7							
TOTAL				100.00		1053.34	.597

Remarks: F 29-20-28

Meter No.