

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

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Form C-122
Revised 9-1-65

122 file

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Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-20-77	
Company Gulf Oil Corp.		Connection None	
Pool South Carlsbad <i>manow</i> Undesignated		Formation Morrow	
Completion Date 10-15-77		Total Depth 12269	Flow Back TD 12223
Elevation 3140 GL		Unit O.C.C. ARTESIA, OFFICE	
Csg. Size 7 5/8-5 1/2		Wt. 18.0	Set At 12269
Perforations: From 11842 To 12162		Well No. # 1	
Csg. Size 2 7/8-8614		Wt. 6.5	Set At 11755
Perforations: From To		Unit Sec. Twp. Rye C 16 23 27	
Type Well - Single - Brokenhead - G.G. or G.O. Multiple Single		Packer Set At 11769	County Eddy
Producing Thru TBG		Reservoir Temp. °F 180 @ 11842	Mean Annual Temp. °F 60
Buro. Press. - P _g 13.2		State New Mexico	
L #11792	H 11792	G _g .584	% CO ₂ .0107
% N ₂ .0026	% 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							3889				72 HR
1.	4 x 2.000			587	10.00	88	3775	70			1"
2.	4 x 2.000			593	20.00	90	3680	70			1"
3.	4 x 2.000			593	40.00	82	3555	70			1"
4.	4 x 2.000			593	80.00	68	3325	70			1"
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	77.17	600.2	.9741	1.309	1.036	2,027
2	19.81	110.11	606.2	.9723	1.309	1.036	2,876
3	19.81	155.72	606.2	.9795	1.309	1.036	4,098
4	19.81	220.22	606.2	.9924	1.309	1.036	5,871
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>No Fluid</u> Mcf/bbl.	
1.	.89	548	1.57	.932	A.P.I. Gravity of Liquid Hydrocarbons <u>---</u> Deg.	
2.	.90	550	1.57	.931	Specific Gravity Separator Gas <u>.584</u>	X X X X X X X X
3.	.90	550	1.57	.931	Specific Gravity Flowing Fluid <u>X X X X X</u>	
4.	.90	550	1.57	.931	Critical Pressure <u>672</u> P.S.I.A.	P.S.I.A.
5.					Critical Temperature <u>350</u> R	R

P _c 3902.2 P _c ² 15227.2						
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 4.404$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 19.509$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.323$
1	3799.0	14432.4	794.8			
2	3714.7	13799.0	1428.2			
3	3611.7	13044.4	2182.8			
4	3430.7	11769.7	3457.5			

Absolute Open Flow <u>19,509</u> Mcfd @ 15.025	Angle of Slope <u>51.0</u>	Slope, n <u>.810</u>
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Remarks: * 2 7/8 Tbg 6.5' # 1.D. 2.441 814' & 2 3/8 Tbg 4.7 # 1.D. 1.995 31H' all converted to & Edquivalent length of 11,792 = 2 7/8 Tbg. 8.7 # 1.D. 2.259

Approved By Commission:	Conducted By: <i>[Signature]</i>	Calculated By: <i>[Signature]</i>	Checked By:
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