

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

MAR 07 1983

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2/25/83					O. C. D.							
Company McCLELLAN OIL CORP					Connection Air					ARTESIA, OFFICE							
Pool Indesignated					Formation Abo					Unit							
Completion Date 2/16/83			Total Depth 4700		Plug Back TD 4575		Elevation 3796Gr			Farm or Lease Name Tyrel/ Fed Com							
Csg. Size 4 1/2		Wt. 10.5		Set At 4605		Perforations: From 4231 To 4411			Well No. 1								
Tub. Size 2 3/8		Wt. 4.7		Set At 4200		Perforations: From Open To Ended			Unit C		Sec. 13		Twp. 10S		Rge. 25E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At None					County Chaves							
Producing Thru Tubing			Reservoir Temp. °F 98 @ 4400		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2			State New Mexico							
L		H		G _g .65		% CO ₂		% N ₂		% H ₂ S		Prover. 2"		Meter Run		Taps	

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.	
SI							925		920	
1.	2	X	1/8	904		46	921		910	
2.	2	X	1/4	307		55	732		720	
3.	2	X	7/32	492		56	518		500	
4.	2	X	3/16	237		51	239		210	
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	.2643		917.2	1.0137	1.259	1.103	342
2	1.087		320.2	1.0048	1.259	1.031	454
3	.8393		505.2	1.0039	1.259	1.049	562
4	1.672		249.2	1.0068	1.259	1.075	598
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2					Specific Gravity Separator Gas _____ XXXXXXXXXX
3					Specific Gravity Flowing Fluid _____ XXXXX
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

P _c 1164.2 P _c ² 1355				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		1073.2	1151	204
2		863.2	745	610
3		506.2	355	1000
4		381.2	145	1210
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1198$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 627$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0492$

Absolute Open Flow _____ 627 _____ Mcfd @ 15.025		Angle of Slope θ _____ 67		Slope, n _____ 4245	
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Remarks: Bottom hole pressures recorded with Amerada type gauge.

Approved By Division	Conducted By: KELTIC SERVICES	Calculated By: Kelly	Checked By:
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