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

SF Feb 122

Form C-122
Revised 9-1-65

RECEIVED
FEB 22 1980
O. C. D.
ARTESIA, OFFICE

Type Test: [x] Initial [ ] Annual [ ] Special — Test Date: 02-18-80

Company: GULF ~~EXPLORATION & PROD.~~	Connection: AIR	Unit	Farm or Lease Name: CALLAWAY FEDERAL
Pool: ~~UNDESIGNATED~~ Morrow DIAMOND A	Formation: ATOKA		Well No.: # 1
Completion Date: 02-18-80	Total Depth: 9100	Plug Back T.D.: 9055	Elevation: 11 GL
Csg. Size: 5½ / Wt.: 17 # / d: / Set At: 9100	Perforations: From 8804 To 8826		Unit: L / Sec.: 6 / Twp.: 16s / Rge.: 28e
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 8741	Perforations: From open To end		
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE GAS WELL	Packer Set At: 8741		County: EDDY
Producing Thru: TBG.	Reservoir Temp. °F: 161 @ 8741	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
			State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8741	8741	.635	.42	.63			4	FLG.

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					2300				
1.	4 X 1.250	450	4.5	83	2160				45 min.
2.	4 X 1.250	465	9.0	86	2115				45 min.
3.	4 X 1.250	500	18.0	89	2030				45 min.
4.	4 X 1.250	530	35.0	86	1930				60 min.
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	7.469	45.66	463.2	.9786	1.255	1.039	435
2.	7.469	65.60	478.2	.9759	1.255	1.040	624
3.	7.469	96.11	513.2	.9732	1.255	1.042	914
4.	7.469	137.88	543.2	.9759	1.255	1.045	1318
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.69	543	1.48	.927
2.	.71	546	1.48	.925
3.	.77	549	1.49	.921
4.	.81	546	1.48	.915
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .635 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 670 P.S.I.A. _____ P.S.I.A.
Critical Temperature 368 R _____ R

P_c 2313.2 P_c^2 5350.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2174.6	4728.9	622.0
2		2131.0	4541.2	809.7
3		2048.5	4196.4	1154.5
4		1954.5	3820.1	1530.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.495$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.495$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4.607$

Absolute Open Flow 4,607 Mcfd @ 15.025 | Angle of Slope θ 45.0 | Slope, n 1.000

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Rick Pagan	Larry Davis	