C/SF File

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O. C. D.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: FOUR POINT ☐ Initial ☐ Annual ☐ Special			Test Date: 3-7-86	
Company: SANTA FE ENERGY	Connection: EL PASO NATURAL GAS			
Pool: W. Sand Dunes Atoka	Formation: ATOKA		Unit: O N	
Completion Date: 3-4-86	Total Depth: 14,850 16500 FEET	Plug Back T.D.: 14,812 14047 FEET	Elevation: 3337	Farm or Lease Name: PURE GOLD C FED
Csg. Size: 7.6250 / Wt.: 39. / d: / Set At: 14100		Perforations: From 13818 To 13854		Well No.: #1
Tbg. Size: 2.8750 / Wt.: 6.5 / d: / Set At: 13657		Perforations: From To		Unit: N Sec.: 17 Twp.: 23S Rge.: 31E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 13661		County: ~~LEA~~ EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 210 @ 13657	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: NEW MEXICO
L: 13836 / H: 13836 / Gg: 0.571	% CO_2: 0.51	% N_2: 0.63	% H_2S: 0	Prover: 0 / Meter Run: 4.0 / Taps: FLANGE

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI					6633	62			72
1.	4.03 X 1.00	689	6.8	78	4842	70	0	0	1.0
2.	4.03 X 1.00	656	16.0	76	3830	70	0	0	1.0
3.	4.03 X 1.00	672	22.1	73	3030	70	0	0	1.0
4.	4.03 X 1.00	656	50.4	71	2325	70	0	0	1.0
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Supor Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	4.75	68.90	702.2	0.9831	1.3229	1.0483	446.
2	4.75	103.48	669.2	0.9850	1.3229	1.0468	671.
3	4.75	123.03	685.2	0.9877	1.3229	1.0490	801.
4	4.75	183.67	669.2	0.9896	1.3229	1.0486	1198.
5							

NO.	P_t	Temp. °R	T_f	Z
1	1.04	538.	1.55	0.910
2.	0.99	536.	1.54	0.913
3.	1.01	533.	1.54	0.909
4.	0.99	531.	1.53	0.909
5				

Gas Liquid Hydrocarbon Ratio 0. Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0. Deg.
Specific Gravity Separator Gas 0.571 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.571
Critical Pressure 675 P.S.I.A. 675 P.S.I.A.
Critical Temperature 347 R 347 R

P_c 6647.8 P_c^2 44193.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	4845.		23470	20723
2	3833		14689	29503
3	3034.		9202	34991
4	2332.		5440	38753
5				

(1) $\frac{P_c^2}{P_t^2 - P_w^2} = 1.1404$ (2) $\left[\frac{P_c^2}{P_t^2 - P_w^2}\right]^n = 1.1404$

AOF = $Q\left[\frac{P_t^2}{P_t^2 - P_w^2}\right]^n = 1366.$

Absolute Open Flow 1366. Mcfd @ 15.025 Angle of Slope @ 45.0 Slope, n 1.000

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	BENNETT & CATHEY	RICHARD TOWNLEY	