NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

c/SF File

Form C-122 Revised 9-1-65

RECEIVED

MAY 18 1983

O. C. D.

ARTESIA, OFFICE

Type Test: XX Initial FOUR POINT ☐ Annual ☐ Special		Test Date: 12-6-82	
Company: READ & STEVENS, INC. ✓	Connection: AIR NEW WELL		
Pool: Buffalo Valley Penn.	Formation: ATOKA	Unit: *	
Completion Date: 12-2-82	Total Depth: ~~8850~~ 8840	Plug Back T.D.: ~~8800~~ 8765	Elevation: 3617
Farm or Lease Name: ROSE FEDERAL			
Csg. Size: 4.500 / Wt.: 11.6 / d: 4.000 / Set At: ~~8800~~ 8840	Perforations: From 8468 To 8789	Well No.: 4	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 8449	Perforations: From OPEN To ENDED	Unit: A / Sec.: 13 / Twp.: 15S / Rge.: 27E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE	Packer Set At: 8449	County: CHAVES	
Producing Thru: TUBING	Reservoir Temp. °F: 166 @ 8628	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2
State: NEW MEXICO			
L: 8628 / H: 8628 / Og: 0.741 / % CO_2: 4.61 / % N_2: 1.72 / % H_2S: 0 / Prover: 0 / Meter Run: 4.0 / Taps: FLANGE			

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI					1751		2372		150.5 HRS
1.	4.03 X 0.625	307	4.0	52	1650	48	2237	3/64	1 HR
2.	4.03 X 0.625	307	21.0	59	1555	46	2134	4.5/64	1 HR
3.	4.03 X 0.625	307	32.0	76	1405	46	1873	6.25/64	1 HR
4.	4.03 X 0.625	307	38.0	78	1303	46	1631	7.5/64	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	1.85	35.79	320.2	1.0078	1.1618	1.0397	80
2	1.85	82.00	320.2	1.0010	1.1618	1.0382	183
3	1.85	101.22	320.2	0.9850	1.1618	1.0341	221
4	1.85	110.31	320.2	0.9831	1.1618	1.0336	240
5							

NO.	P_t	Temp. °R	T_d	Z
1	0.47	512	1.31	0.925
2	0.47	519	1.33	0.928
3	0.47	536	1.37	0.935
4	0.47	538	1.38	0.936
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas 0.741 XXXXXXXXXX

Specific Gravity Flowing Fluid XXXXX

Critical Pressure 683 P.S.I.A. _____ P.S.I.A.

Critical Temperature 390 R _____ R

P_c 1800.8 P_c^2 3243.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	5063	1703	2899	344
2	4610	1627	2649	594
3	3558	1438	2068	1175
4	2703	1262	1593	1650
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9655$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5988$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 384.$

Post ID-2 5-20-83 bamp & BK

Absolute Open Flow 384. Mcfd @ 15.025

Angle of Slope @ 55.2

Slope, n 0.694

Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	DON BENNETT	BENNETT-CATHEY	