STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

IL CONSERVATION DIVISIO
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: 4 POINT [X] Initial [ ] Annual [ ] Special				Test Date: 4-22-88	
Company: READ & STEVENS INC.		Connection: TO AIR			
Pool: Lea Penn		Formation: MORROW		Unit	
Completion Date: 4-19-88	Total Depth	Plug Back TD: 13530	Elevation	Farm or Lease Name: MARK FEDERAL	
Csg. Size: 5.500 / Wt.: 20 / d: 4.778 / Set At: 13530		Perforations: From 13171 To 13415		Well No.: 1	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 13065		Perforations: From OPEN To ENDED		Unit: M / Sec.: 3 / Twp.: 20S / Rge.: 34E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 13042		County: LEA	
Producing Thru: TUBING	Reservoir Temp. °F: 215@ 13293	Mean Annual Temp. °F	Baro. Press. – P_a	State	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13293	13293	0.652	0.09	0.46	Ø	Ø	3.067	FLNG.

	FLOW DATA					TUBING DATA		BHP 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						4535	83			72 HRS.
1.	3.067	1.500	505	2.75	84	3845	80	0	0	60 MIN.
2.	3.067	1.500	505	6.0	80	3410	80	0	0	60 MIN.
3.	3.067	1.500	510	11.0	73	2910	79	0	0	60 MIN.
4.	3.067	1.500	510	20.0	78	2315	78	0	0	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	11.13	37.75	518.2	0.9777	1.2384	1.0460	532
2.	11.13	55.76	518.2	0.9818	1.2384	1.0474	790
3	11.13	75.86	523.2	0.9877	1.2384	1.0499	1084
4.	11.13	102.29	523.2	0.9831	1.2384	1.0483	1453
5.							

NO.	P_t	Temp. °R	T_r	Z
1	0.77	544	1.46	0.914
2.	0.77	540	1.45	0.912
3.	0.78	533	1.43	0.907
4.	0.78	538	1.44	0.910
5				

Gas Liquid Hydrocarbon Ratio 24,216 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56.8 Deg.
Specific Gravity Separator Gas 0.652 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx 0.781
Critical Pressure 670 P.S.I.A. 663 P.S.I.A.
Critical Temperature 373 R 414 R

P_c 4514.6 P_c^2 20382

NO	P_t	P_w	P_w^2	$P_c^2 - P_w^2$
1		3827	14649	5733
2		3392	11509	8873
3		2896	8385	11997
4		2308	5329	15053
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3540$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3540$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1967$

Absolute Open Flow 1967 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1.000

Remarks: PRODUCED 6.64 BBLS OF CONDENSATE IN 4 HRS.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	BENNETT & CATHEY	BENNETT & CATHEY	