

**State of New Mexico
Energy, Mineral and Natural Resources**

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Form C-122

MAY 30 2006

Revised October, 1999

**Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505**

COMPUTER

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SAMSON RESOURCES COMPANY					Lease or Unit Name LOVING 1 STATE 4					
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					Test date 2/28/2006			Well No. 4		
Completion Date: 9/16/2004		Total Depth 12872		Plug Back TD 12056		Elevation: 3102 GL		Unit Ltr.-Sec.-TWP-Rge. J 1 24S 27E		
Csg. Size 4.500	Wt. 11.6	d 4.000	Set At 12870	Perforations: From 11362 To 11368		County EDDY				
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 11315	Perforations: From _____ To _____		Pool				
Type Well - Single - Bradenhead - G.G or G.O Multiple SINGLE					Packer Set At 11300			Formation ATOKA		
Prod. Thru TUBING		Reservoir Temp.F 210 @ 11,365		Mean Annual Temp. F 60		Baro. Press - Pa 13.20		Connection DOWNSTREAM		
L 11365	H 11365	Gg 0.580	%Co2 0	%N2 0	%H2s ppm 0	Prover		Meter run X	Taps F	
FLOW DATA					TUBING DATA			CASING DATA		
NO.	Prover Line Size	Orifice X Size	Press. p.s.i.g.	Diff. hw	Temp. F.	Press. p.s.i.g.	Temp. F.	Press. p.s.i.g.	Temp. F.	Duration Of Flow
Shut-in Pressure						650	60			24
1	2.067 X .500		270	59	60	390	60			24
2										
3										
4										
5										
RATE OF FLOW CALCULATIONS										
NO.	COEFFICIENT (24 HOUR)	hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg.	Super Compress Factor, Fpv.	Rate of Flow (Q) Mcfd			
1	1.19	129.26	283.20	1.0000	1.31306	1.020632	206			
2										
3										
4										
5										
NO.	Pr	Temp R	Tr	Z	GAS LIQUID HYDROCARBON RATIO 0 Mcf/bbl.					
1	.421	520	1.486	.9579	API GRAVITY OF LIQUID HYDROCARBONS 0 Deg.					
2					S. G. SEPARATOR GAS 0.580 XXXXXXXXXXXX					
3					S.G. FLOWING FLUID XXXXXXXXXXXX 0.580					
4					CRITICAL PRESSURE 672.70 672.70 P.S.I.A.					
5					CRITICAL TEMPERATURE 349.98 349.98 R					
Pc 663.2		Pc2 439.8								
NO.	Pw	Pw2	Pc2-Pw2	[1] $\frac{Pc2}{Pc2-Pw2} = \frac{1.595150}{1.595150}$						
1	405.1	164.1	275.7	[2] $\frac{Pc2}{Pc2-Pw2} = \frac{1.595150}{1.595150}$						
2				AOF = Q * $\frac{Pc2}{Pc2-Pw2} = \frac{328}{1.595150}$						
3										
4										
5										
Absolute Open Flow			328	Mcf/d @ 15.025		Angle of Slope		45.00	Slope n 1.00	
Remarks:										
Approved by Division:			Conducted by: SAMSON RESOURCES COMPANY			Calculated by: COMPUTER			Checked by:	

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