

State of New Mexico
Energy, Mineral and Natural Resources

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

Form C-122
Revised October, 1999

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

30-025 36273

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SAMSON RESOURCES COMPANY					Lease or Unit Name NEW MEXICO FEDERAL A				
Type Test ☒ Initial ☐ Annual ☐ Special					Test date 9/12/2003		Well No. 7		
Completion Date: 7/18/2003		Total Depth 14040		Plug Back TD 13920		Elevation: 3659' GL		Unit Ltr.-Sec.-TWP-Rge. E 4 21S 32E	
Csg. Size 5.500	Wt. 20	d 4.778	Set At 14037	Perforations: From 13612 To 13622			County LEA		
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 13593	Perforations: From To			Pool		
Type Well - Single - Bradenhead - G.G or G.O Multiple SINGLE					Packer Set At NONE			Formation MORROW	
Prod. Thru TUBING		Reservoir Temp.F 245 @ 13,617		Mean Annual Temp. F 60		Baro, Press - Pa 13.20		Connection DOWNSTREAM	
L 13617	H 13617	Gg 0.580	%Co2 0	%N2 0	%H2s ppm 0	Prover	Meter run X	Taps F	
FLOW DATA					TUBING DATA		CASING DATA		Duration Of Flow
Prover Line X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. F.	Press. p.s.i.g.	Temp. F.	Press. p.s.i.g.	Temp. F.	
Shut-in Pressure					1820	60			24
1	4.026 X 1.750	601	87	60	1400	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	14.93	231.16	614.20	1.0000	1.31306	1.047291	4745		
2									
3									
4									
5									
NO.	Pr	Temp R	Tr	Z	GAS LIQUID HYDROCARBON RATIO API GRAVITY OF LIQUID HYDROCARBONS S. G. SEPARATOR GAS S.G. FLOWING FLUID CRITICAL PRESSURE CRITICAL TEMPERATURE				
1	.913	520	1.486	.9097					
2									
3									
4									
5									
Pc	1833.2	Pc2	3360.6						
NO.	Pw	Pw2	Pc2-Pw2	(1) $\frac{Pc2}{Pc2-Pw2} = \frac{5.263158}{5.263158}$ (2) $\frac{Pc2}{Pc2-Pw2} = \frac{5.263158}{5.263158}$ $AOF = Q * \frac{Pc2}{Pc2-Pw2} = 24974$					
1	1649.9	2722.1	638.5						
2									
3									
4									
5									
Absolute Open Flow		24974	Mcf/d @ 15.025	Angle of Slope		45.00	Slope n		1.00
Remarks: WELL PRODUCED 37.1 BBLs OF CONDENSATE AND 118 BBLs WATER DURING TEST.									
Approved by Division:		Conducted by:		Calculated by:			Checked by:		
		SAMSON RESOURCES COMPANY		COMPUTER					

7160-3901-9842-0440-6862