

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

State of New Mexico
Energy, Mineral and Natural Resources

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

RECEIVED

Form C-122

Revised October, 1999

AUG 25 2005

OCDA-ARTERIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SAMSON RESOURCES COMPANY					Lease or Unit Name LIGHTNING 24 FEDERAL COM #2					30-015-33578											
Type Test ☒ Initial ☐ Annual ☐ Special					Test date 7/15/2005					Well No. 2											
Completion Date: 6/29/2005					Total Depth 12060					Plug Back TD 12060											
Elevation: 3231 GL					Unit Ltr.-Sec.-TWP-Rge. J 24 25S 26E																
Csg. Size 4.500		Wt. 11.6		d 4.000		Set At 12060		Perforations: From 11873 To 11934					County EDDY								
Tbg. Size 2.375		Wt. 4.7		d 1.995		Set At 11425		Perforations: From To					Pool								
Type Well - Single - Bradenhead - G.G or G.O Multiple SINGLE										Packer Set At 11425					Formation MORROW						
Prod. Thru TUBING		Reservoir Temp. F 220 @ 11,904		Mean Annual Temp. F 60		Baro, Press - Pa 13.20					Connection UPSTREAM										
L 11904		H 11904		Gg 0.580		%Co2 0		%N2 0		%H2s ppm 0		Prover		Meter run X		Taps F					
FLOW DATA										TUBING DATA					CASING DATA						
Prover Line X		Orifice Size 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			
NO.																					
Shut-in Pressure										2500		75						24			
1		3.068 X 1.250		712		19		75		900		75						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		7.58		117.38		725.20		0.9859		1.31306		1.049797		1209							
2																					
3																					
4																					
5																					
NO.		Pr		Temp R		Tr		Z		GAS LIQUID HYDROCARBON RATIO 0 Mcf/bbl. API GRAVITY OF LIQUID HYDROCARBONS 0 Deg. S. G. SEPARATOR GAS 0.580 XXXXXXXXXXXX S.G. FLOWING FLUID XXXXXXXXXXXX 0.580 CRITICAL PRESSURE 672.70 672.70 P.S.I.A. CRITICAL TEMPERATURE 349.98 349.98 R											
1		1.078		535		1.529		.9054													
2																					
3																					
4																					
5																					
Pc		2513.2		Pc2		6316.2															
NO.		Pw		Pw2		Pc2-Pw2		(1) $\frac{Pc2}{Pc2-Pw2} = 1.163195$ (2) $\frac{Pc2}{Pc2-Pw2} = 1.163195$ AOF = Q * $\frac{Pc2}{Pc2-Pw2} = 1406$													
1		941.4		886.2		5430.0															
2																					
3																					
4																					
5																					
Absolute Open Flow										1406		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:									

7160-3901-9842-0439-5913