

DATE August 30, 1977

Operator El Paso Natural Gas Company		Lease Vanderwart A #2-A	
Location NW 11-29-08		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4 1/2	Set At: Feet 5539'	Tubing: Diameter 2 3/8	Set At: Feet 5448'
Pay Zone: From 4591'	To 5518'	Total Depth: 5539	Shut In 8-21-77
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Choke Size, Inches .750		Choke Constant: C 12,3650	
Shut-In Pressure, Casing, PSIG + 12 = PSIA	Days Shut-In 9	Shut-In Pressure, Tubing PSIG 652	+ 12 = PSIA 664
Flowing Pressure: P PSIG 237	+ 12 = PSIA 249	Working Pressure: P _w PSIG Calc.	+ 12 = PSIA 494
Temperature: T = 66 °F	F _t = .9943	F _p = 1.025	Gravity .670 F _g = .9463

$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = 12.365(249)(.9943)(.9463)(1.025) = 2969 \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = Q \left(\frac{440896}{196860} \right)^n = 2969(2.2396)^{.75} = 2969(1.8308)$$

$$Aof = 5436 \text{ MCF/D}$$

Note: Well vented 388 MCF of dry gas to the atmosphere during test.

TESTED BY N. Waggoner

WITNESSED BY _____

C.R. Wagner
Well Test Engineer

