

Henry No. 1 (Strawn)

A = acres

H = Reservoir Thickness (Ft.)

$\phi$  = Porosity (%)

$S_w$  = Connate Water (%)

BHP = Reservoir Pressure (psia)

T = Reservoir Temperature ( $^{\circ}$ R)

Z = Compressibility Factor

$$\text{Recoverable Volume of Gas (MCF)} = (A)(H)(43.560)(\phi)(1-S_w) \times \frac{60+460}{T} \times \frac{\text{BHP}}{15.025} \times \frac{1}{Z} \times \text{RF}$$

from P/Z curve - recoverable gas equals 9,450,000 MCF

$$9,450,000 \text{ MCF} = (A)(75 \text{ ft})(43.560 \text{ ft}^2/\text{ac})(.059)(.61) \frac{(60 + 460)(5,547)}{(182 + 460)(15.025)} \left( \frac{1}{1.03} \right) (.81)$$

Solving for A

$$A = 342 \text{ acres}$$

JRP:sh-586

