

BEFORE EXAMINER QUINTANA	
OIL CONSERVATION DIVISION	
PENNZOIL	EXHIBIT NO. 18
CASE NO.	8727

EXHIBIT
RESERVIOR PARAMETERS & DRAINAGE CALCULATIONS
VIERSEN #1

Permeability: K = .043 Darcies*

Thickness: H = 74 Feet

Static Reservoir Pressure: Pe = 2473 PSIG*

Flowing Pressure: Pw = 2258 PSIG

Oil Viscosity: u = .38 Centipoise

Formation Volume Factor: Bo = 1.42 $\frac{\text{Reservoir Barrel}}{\text{Stock Tank Barrel}}$

Well Bore Radius: rw = .33 Feet

Flow rate: q = 878 Barrels/day

$$\ln \frac{r_e}{r_w} = \frac{7.08 Kh (P_e - P_w)}{u B_o q}$$

$$\ln \frac{r_e}{.33} = \frac{7.08 (.043) (74) (2473 - 2258)}{.38 (1.42) (878)}$$

$$r_e = 9,090 \text{ Ft.}$$

* From pressure build up - Hoerner analysis