PARSONS ENGINEERING SCIENCE, INC.

Client CSSA Job. No. 728487.03 Sheet 1 of 1

Subject Well 16/Well D Hydraulic Conductivity Calculation By D.W. Adkison Date 8/29/01

Checked Rev.

Hydraulic conductivity may be calculated using transmissivity and aquifer saturated thickness using the equation:

$$K = \frac{T}{b}$$

Where:

K = hydraulic conductivity

T = transmissivity

b = aquifer saturated thickness

Therefore:

$$K = \frac{1600 \text{ gpd/ft}}{178 \text{ ft}}$$

$$= 8.98 \text{ gpd/ft}^2$$

converting gallons to ft^3 yields (7.48 gal = $1 ft^3$)

$$= 1.20 \text{ ft/day}$$

converting ft/day to cm/sec

$$= \frac{1.20 \text{ ft}}{\text{day}} \times \frac{1 \text{ day}}{24 \text{ hr}} \times \frac{1 \text{ hr}}{60 \text{ min}} \times \frac{1 \text{ min}}{60 \text{ sec}} \times \frac{12 \text{ in}}{1 \text{ ft}} \times \frac{2.54 \text{ cm}}{1 \text{ in}}$$

$$= 4.2 \times 10^{-4} \text{ cm/sec}$$