

THEORETICAL PUMP FLOW CALCULATIONS

Formula:

$$Q_{ds} = [(Hp)(8.814)(Eff)] \div [Lift + (psi \times 2.308)]$$

$$Hp = \text{Horsepower} = \underline{15}$$

$$Eff = \text{Efficiency} = \underline{.60} \quad (\text{Usually } 70\%)$$

Lift: (Static Water Level + Assumed Draw down)

$$\text{Static Water Level} = \underline{60} \text{ ft.}$$

$$\text{Assumed Draw down} = + \underline{\quad} \text{ ft.}$$

$$\text{Lift} = \underline{60}$$

OR

$$\text{Measured Dynamic Water Level} = \underline{\quad} \text{ ft.}$$

$$psi = \text{Operating Pressure} = \underline{0} \text{ psi } \textit{open discharge}$$

$$Q_{cfs} = \left[\frac{15}{Hp} \times 8.814 \times \frac{.6}{Eff} \right] \div \left[\frac{60}{Lift} + \left(\frac{\quad}{psi} \times 2.308 \right) \right]$$

$$Q_{cfs} = \left[\underline{79.3} \right] \div \left[\underline{.6} \right]$$

$$Q_{cfs} = \underline{1.32} \text{ cfs}$$

PERMIT NO. _____