

THEORETICAL PUMP FLOW CALCULATIONS

Formula:

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

Hp = Horsepower = 75

Eff = Efficiency = 70% (Usually 70%)

Lift: (Static Level + Assumed Draw down)

Static Water Level = _____ ft.

Assumed Draw down = + _____ ft.

Lift = 80'

OR

(6100' - 6020' FROM USGS QUAD MAP)

Measured Dynamic Water Level = _____ ft.

psi = Operating Pressure = 60 psi

$$Q_{cfs} = \left[\frac{75}{Hp} \times 8.814 \times \frac{0.70}{Eff} \right] \div \left[\frac{80}{Lift} + \left(\frac{60}{psi} \times 2.308 \right) \right]$$

$$Q_{cfs} = [\quad] \div [\quad]$$

$$Q_{cfs} = \underline{2.12} \text{ cfs}$$

$$6 \text{ QTR MI WL} \times 33 \text{ BIRDS} \times 5 \text{ GPM} = \underline{\underline{2.20 \text{ cfs}}}$$

CLAIM

~~NO.~~ NO. 22-13980