How to conduct...

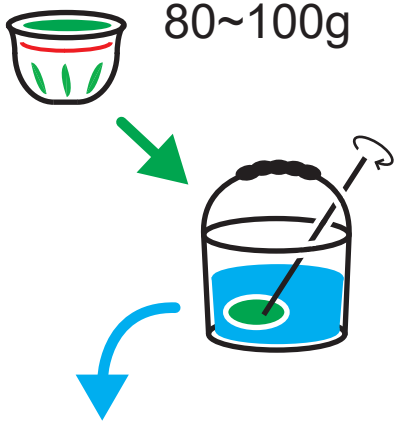
Disinfection

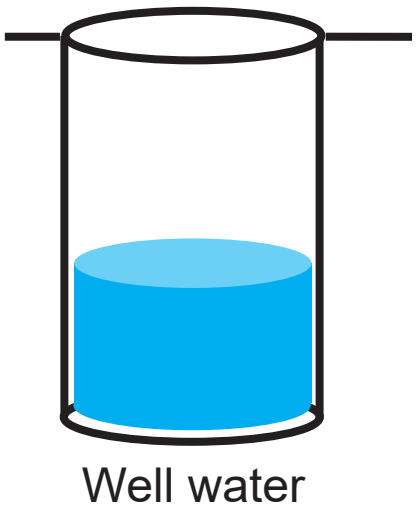
after Rope pump installation

JICA WAS-RoPSS Project & JICA Volunteer:Takashi Nedachi on 17th August 2015

Coffee cup, ሲኒ

80~100g





Well water

Calcium Hypochlorite [$Ca(ClO)_2$]

Disinfectant, Chlorine

Target Chlorine

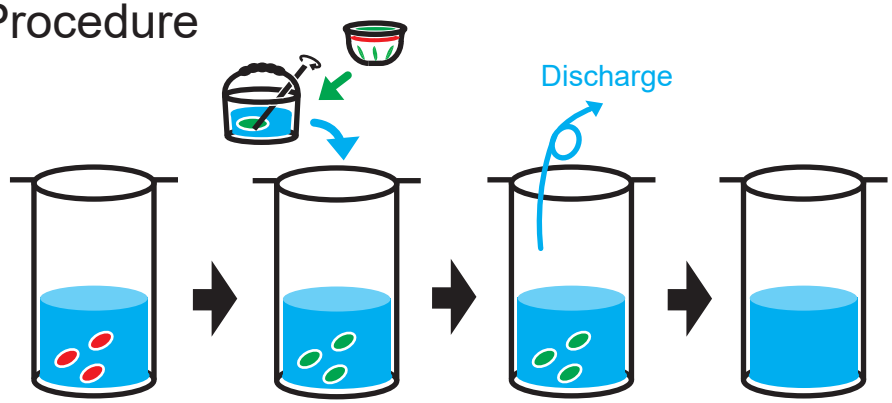
50 ~ 100 mg/L (ppm)

Low Turbidity

High Turbidity

Well water volume	Times of cup, ሲኒ
1 M^3(ton)	1~1.5 cups ሲኒ
2 M^3(ton)	2~ 3 cups ሲኒ
3 M^3(ton)	3~4.5 cups ሲኒ
4 M^3(ton)	4~ 6 cups ሲኒ
5 M^3(ton)	5~7.5 cups ሲኒ

Procedure



- Calculate water volume
- Check pH & Turbidity

- Add Chlorine (Calcium Hypochlorite)

12~24 hours overnight

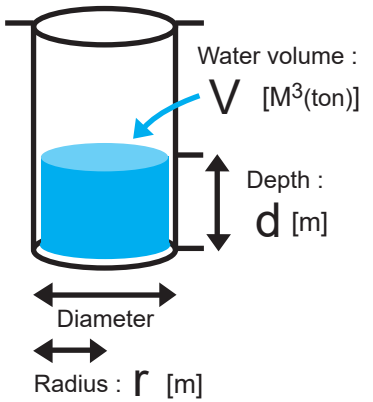
- Dewater

- Check Residual Chlorine

- Dewatering until <5 mg/L as Chlorine

No smell: <0.5 mg/L as Chlorine

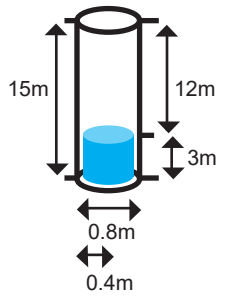
Calculation for water volume



3.14

$$V = \pi \times r^2 \times d$$

For example:



$V = \pi \times r^2 \times d$

$V = 3.14 \times (0.4)^2 \times 3$

$= 1.51\ M^3$(ton)

JICA : Japan International Cooperation Agency

Disinfection

Disinfection using Coffee cup, ሲኒ method

①	②	③	④
			
Calculate well water volume [M^3].	Check Turbidity and pH.	Take Chlorine into bucket using coffee cup, ሲኒ, depend on Turbidity.	Mix Chlorine with well water in bucket.

⑤	⑥	⑦	⑧
			
Add the solution with Chlorine into the well. Do not drink the water during disinfection.	After overnight (12~24 hours), check the smell of treated water.	Flush the treated water.	Check Residual Chlorine. Then, flush again until no smell of Chlorine in treated water.

Overnight (12~24