

## WATER BRIGADES PROJECT FOLLOW UP: LA CONCEPCION

DATE OF FOLLOW UP VISIT: MAY 24, 2015

### System Background

La Concepcion has a gravity based water system and was completed in June , 2012. The system connects 120 houses an elementary school, two churches and a community bank. The system consists of a pump installed over a well, followed by a pumping line which drives the into the treatment tank.

### Summary of Follow-Up

Water Brigades staff and Brigaders on a Holistic Model day from Oklahoma State University carried out the following activities during the follow-up visit on part of their exit strategy for sustainable operation of the system:



- Completed a walk-through of the system including the dam, and house connections
- Tested chlorine and pH levels in 3 houses, one near the tank, the second in the middle of the distribution network and the third at the end.
- Held a meeting with the Water Council representative

## Observations

A small 5 Hp pump installed at the well with control and cleaning valves propels the water and drives it downward towards the tank.

A 10,000 gallon size tank collects the ground water (good flow rate because of long dry season 27.2 gpm). Giving them consistent water supply at every 2 days, considering the electricity costs.

The visit was ill attended only by the Audit Augusto Ferrera, and the Secretary Nelly Mejia (2/7 of the council participants) and this are the results of the technical issues.

## *Technical Follow-up*



### Well

- 5 minutes walk distance from the road to pump
- Ground water source (enough flow rate 27.2 gpm)

Hardness	PH	Chlorine	Nitrates	Nitrites	Pesticides	Lead
425	7.0	0.0	0.3	0.0	Negative	Negative

### Pumping line

- In optimum conditions

### Tank

- 10,000 gln storage capacity

- Chlorine levels = 0.30
- PH of 7.0
- 5 ounces of chlorine allotted to entire system and fed into main tank via drip tank on top

### House nearest main tank

Hardness	PH	Chlorine	Nitrates	Nitrites	Pesticides	Lead
425	7.0	0.3 (low)	0.3	0.0	Negative	Negative



The houses did have chlorine residues but little to nothing, so that means they were chlorinating but not enough, they need to increase the chlorine concentration from 5 oz to 16 oz.

The Current water council meet once every 3 month, or when there is an emergency, because no significant problems have been present; and every two times a year with the community's general assembly or whenever they have to make new house connections

Each house pay 80 Lempiras per month of water tariff , Water Council is responding at its best, plumber payment is up to date because some people pay on time.

After three years of being in the water council, they're supposed to retire but the community doesn't want them to leave their position

They bought a new water pump with a higher Horsepower which reduces the pumping hours and reduces the electric bill.

Most people pay, but some people delay their payments, water connection cut after 3 opportunities. If they don't pay in two months, a note is sent. 4 out of 120 haven't paid, which is less than 4% of morosity.

### **Recommendations and Response**

GB recommends them to constantly use the correct concentration of chlorine for their health not to be endangered by harmful bacteria and parasites, and leave the tank to be full before releasing the whole content of water in it.

Keep up with the correct expenses and incomes documented. Balancing of the accounts and savings are doing fine, they have L.61,000 in savings which is excellent.