## CITY OF ITALY

## Monitoring Plan

Public Works ID 0706028

**Director of Public Works Dean Carrell** 



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- The City of Italy operates a public water system that is ground water based from the Trinity and Woodbend aquifers. The city has a current population of 2160 with 739 connections.
  - a. There are three raw water samplings:
    - i. Well#1
    - ii. Well #2
    - iii. Well #3
      - 1. In plant sampling
  - b. The treatment process is as chlorine, LAS, Phosphates, and Hydrox.
  - c. Entry point sampling

Sample Site	Some	
Sample Tap at .5 Million Gallon Concrete Storage Tank	Trinity/Woodbine	Wells 1, 2, 3
Sample Site at 2,000 Gallon Ground Storage Tank	Trinity/Woodbine	Wells 1, 2, 3
Sample Site at 3,000 THS Elevated	Trinity/Woodbine	Wells 1, 2, 3

## Table 1

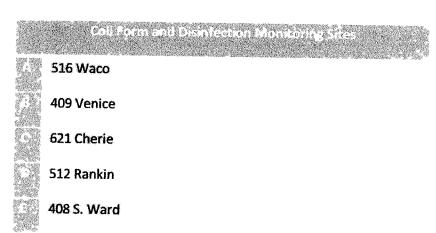
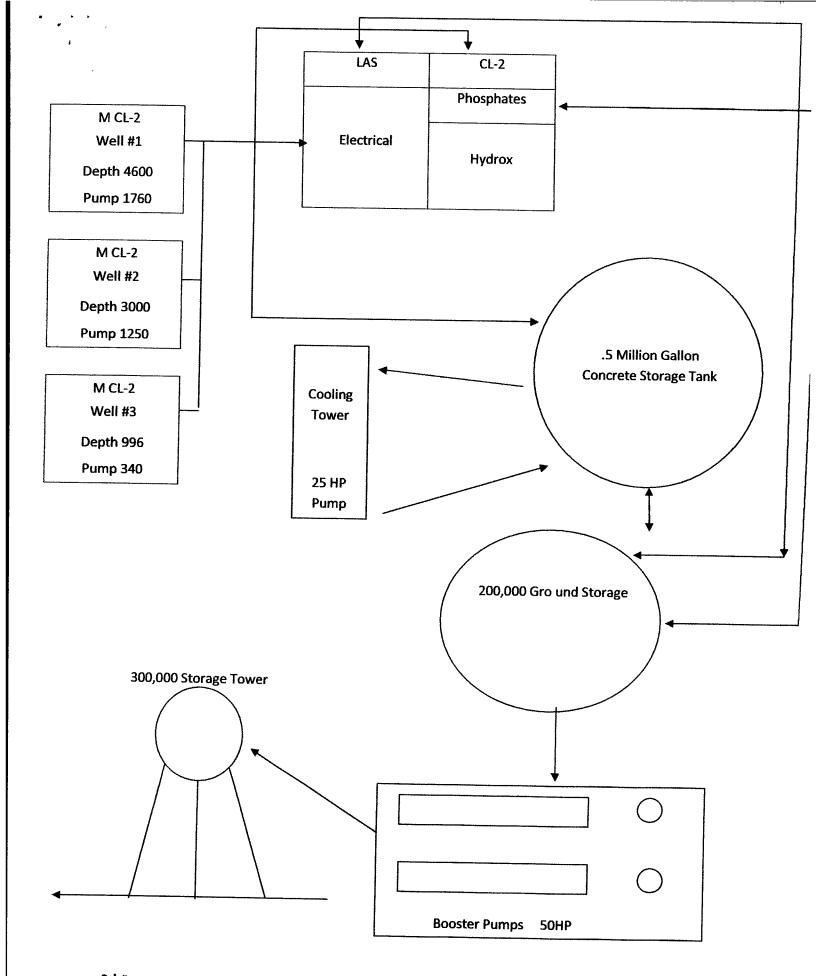


Table 2



- II. Disinfectant Entering the Distribution System
  - a. The City of Italy operates vacuum chlorination to chlorinate LMI to LAS, LMI to Phosphates, and positive vent pump to Hydrox the water from the wells.
  - b. The water system delivers water to the customers as chloramines/monochromes residuals.
  - c. The chlorine is in compliance with TECQ's rules by serving an entry of 0.5mgL total residual.
- III. Distribution Systems Sampling
  - a. Appendix 1 shows the distribution of the system.
    - i. Coli form Samples
      - 1. Two coli form samples are taken monthly at each site and rotated as shown in Table 2.
- IV. Method
  - a. Coli form samples are collected by the City if Italy operator and sent to:

**Environmental Monitoring Lab** 

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- b. The City of Italy follows the rules of TCEQ to ensure there are no repeat samples.
  - i. No repeat following fecal or E. coli
  - ii. No more than one repeat if samples are Coli form positive and none of the repeats are fecal or E. coli positive.
- V. Disinfectant Residual Total Chlorine
  - a. Frequency
    - i. The disinfection residual is measured at the same time every day.
    - ii. Due to the system size (over 250 and less the 5000) the residual is measured every day
  - b. Disinfection Byproducts
    - i. DBP's, TTHM's. HAH's
      - 1. Since the City of Italy is ground water only there is not requirement to test for these DBP's.
    - ii. Lower River Colorado samples each well annually to ensure the City's compliance. This is an area water sampling test.
      - The city is not required to monitor lead or copper levels. TCEQ has informed the City regarding this compliance.
    - iii. The City Does not monitor for Asbestos as TCEQ has not mandated and requirement.

Well # 2

Well # 1

Well # 3

Appendix 1. Distribution Sampling System