


eurofins | Eaton Analytical



CHEMISTRY SAMPLING
 for the
**Mariana Islands Water Operator
 Association Members**

April 13, 2016

www.eatonanalytical.com

Presentation Outline

- Sources of Field Contamination
- Equipment & Supply
- Collection
- Documentation & Delivery
- Sources of Lab Contamination
- Conclusions

Sources of Field Contamination



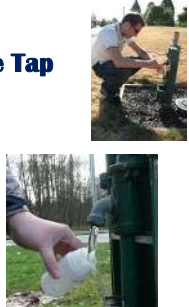
Equipment and Supply




Sample	100	200	300	400	500	600	700	800	900
Initial Date	07/05	07/05	07/05	07/05					
Sample	Water	Water	Water	Water					
PH	6.88	6.22	6.58	6.22	6.88	6.87	6.74	6.88	6.74

Collection - General

1. Glove Up
2. Inspect/Clean Sample Tap
3. Flush
4. Stage Containers
5. Gauge Flow
6. Glove Up
7. Collect Samples




Collection - Volatiles





1. 40-ml amber glass vials w/Ascorbic Acid (Dechlor)
2. Fill To Neck
3. Wait (1 minute)
4. Add HCL (pH <2)
5. No headspace
6. 14 Days Hold Time

Collection - Volatiles







- Travel Blank**
DI water from the lab
- Field Blank**
DI water from the lab transferred in the field
- Equipment Blank**
DI water from the lab from equipment in the field

Collection - Metals


- 500-ml plastic w/Nitric Acid (pH<2)**
- Fill To Neck**
- Do Not Overspill**
- pH adjustment in the lab**
- 6-month hold time**
- Room Temperature**

Collection - LCR

Summary
The Michigan Lead and Copper Rule Working Group...
1. Continue mandatory in-home tap sampling for lead and copper...
2. Draft interim lead sampling to state regulatory procedure...
3. Monitor the drinking water in the water from inside the lead service line...
4. Expand in-home compliance sampling for all districts...
5. Provide a partial lead service line replacement...
6. Prepare to lead service line replacement regardless of scenario.

Collection - LCR



LEAD AND COPPER SAMPLING PROCEDURE & CERTIFICATION

DO NOT let the water run before taking the sample. This is a "first-draw" sample. The first water to be collected from must be allowed to run for at least 1 hour.

DO NOT let the top of the bottle touch the faucet.

BE CAREFUL - the sample bottle contains nitric acid as a preservative.

- Use sample containers provided, a 1-liter plastic bottle with preservative.
- Remove the cap from the sample bottle, placing the cap on a clean surface with the open side up.
- Position the sample bottle under the faucet to catch the first water that comes out.
- Turn on the cold water and fill the sample bottle to just below the bottom of the bottle's neck. Space is needed for mixing. Screw cap on tightly.
- Clearly label the sample bottle, using waterproof ink:
 - Water system name and PSDID
 - Sample site ID and location
 - Sample date and time
- Properly fill out and sign the Chain-of-Custody (COC) form.
- Call your contractor to advise them that the samples have been collected.


[Click Here for Tap Sampling Procedures](#)
[Click Here for Sample Site Guidance](#)
[Click Here for Water System specific info](#)

Collection - Other Organics




- 40 mls to 1 Liters amber glass or plastic**
- Buffer, Acid and/or None**
- Fill To Neck**
- Do Not Overspill**
- 7 to 28 days hold time**
- 6 degrees C**

Documentation & Delivery



CHAIN OF CUSTODY RECORD

EUROFINNS
Eaton Analytical
2750 Maple Drive, Suite 100
Ann Arbor, MI 48106
Phone: 313.383.1100
Fax: 313.383.1100
800.855.LABS (5275)
www.eurofins.com

CLIENT INFORMATION:
CLIENT NAME: _____ PROJECT CODE: _____
CLIENT ADDRESS: _____ PROJECT ADDRESS: _____
CLIENT PHONE: _____ PROJECT PHONE: _____
CLIENT FAX: _____ PROJECT FAX: _____

LABORATORY INFORMATION:
LABORATORY NAME: _____ PROJECT CODE: _____
LABORATORY ADDRESS: _____ PROJECT ADDRESS: _____
LABORATORY PHONE: _____ PROJECT PHONE: _____
LABORATORY FAX: _____ PROJECT FAX: _____

SAMPLE INFORMATION:
SAMPLE ID: _____ CLIENT LAB ID: _____
DATE: _____ TIME: _____
METHOD: _____

CHAIN OF CUSTODY:
DATE/TIME: _____ SIGNATURE: _____
DATE/TIME: _____ SIGNATURE: _____
DATE/TIME: _____ SIGNATURE: _____

Documentation & Delivery



- ✓ **Documenting Field/Sample Conditions**
- ✓ **Storing Samples**
- ✓ **Packing and Breakage**
- ✓ **Temperature Management**
- ✓ **Timely Delivery**
- ✓ **Timely Processing**

Sources of Lab Contamination



Conclusion



- 1. Maintain Sample Sites**
- 2. Calibrate Equipment**
- 3. Inventory Sample Kits**
- 4. Stage and Organize**
- 5. Take Your Time**
- 6. Document Everything**

Thank You



Rick Zimmer
Senior Account Manager
949-540-6723
rickzimmer@eurofinsus.com