

MANDATORY LEAD IN WATER TESTING

TRAINING MODULE 3: WATER SAMPLING



**OREGON
DEPARTMENT OF
EDUCATION**

Oregon achieves . . . together!

Table of Contents

Selecting a Testing Lab	3
Prior to Testing	3
Prerequisites	4
Draw Samples vs Flush Samples	4
How to Test - Draw Samples	5
How to Test - Flush Samples	6

Selecting a Testing Lab

This is an important step and you should do some checking before making a decision. Several factors play into selecting a testing lab for your school. A lab you have previously used may or may not be your best choice. Things to consider:

- 1) **You must use a lab that is ORELAP certified to test for lead in drinking water.** Certifications do require periodic renewal, so you should double check to be sure the lab you select is still certified. A list can be found on the [OHA website](#). There is also an [interactive map](#) on the OHA website that can help find lab locations in your area. Note that some testing labs have multiple locations but may not be certified to test for lead in water at all locations. In this event, they normally receive samples and send them on to their lab which is certified to complete testing. To use the map, click on the locations to see information about ORELAP labs in your area. A box will appear providing the lab name, contact information, and a list of materials they are certified to test for. **The list MUST show a “Yes” next to LEAD to indicate the lab is ORELAP certified to test for lead in drinking water.** While ORELAP and OHA strive to keep these lists current, it is always a good idea to specifically ask the lab if they are currently ORELAP certified to insure that the list you are looking at is not out of date. This is important as **testing by labs that are not ORELAP certified will have to be repeated and the costs are not reimbursable.** If you have any questions, contact Brian Hodges-French.
- 2) Consider asking labs to send test results not only as lab reporting sheets, but also as Comma Separated Value (CSV) files. This will make transferring data to the Reimbursement Template and reporting test results easier, quicker and more accurate.
- 3) It pays to shop around. Pricing varies from one lab to the next, and some will do copper testing at no additional charge.
- 4) There are some labs that do not have the proper accreditation themselves, but will send your samples on to another lab that does. While this may be more convenient in some instances, be aware that they typically charge a higher price per sample for this service. It may be better to select a different lab, even if you must pay to ship samples to the lab. Reimbursement is available for shipping costs. Save your receipts.
- 5) Controlling lab costs as much as practical helps be good stewards of the state’s resources and leaves more funding available to be distributed on a per sample basis, above and beyond paying for the direct lab costs.

Prior to Testing

Successful testing requires an organized approach. Before beginning testing, assign Fixture Identification Numbers to each fixture using the new protocol described [Training Module 2 – Fixture and Sample ID Numbers](#). Your district will need to prepare a Master Fixture ID spreadsheet for the purpose of tracking fixtures. It must list, at minimum:

- 1) Specific building name and ODE Building Identification Number.
- 2) A unique description of each fixture location, such that someone coming into your school with no inside knowledge of your building could find that specific fixture.

- 3) The Fixture Identification Number, assigned using the ODE numbering protocol.
- 4) An index number to match the description and ID number to a shorter, easier to use number for use in the schematic described below. (Optional)
- 5) If you have previously had your own fixture numbering system, add a column to include this number as well so that previous records can be cross referenced with new records.

For your own records, you will need to track information such as test dates, results, and actions taken for all of your fixtures for years to come. You may choose to add columns to the Master Fixture ID spreadsheet described above to accomplish this, or develop a separate spreadsheet for this purpose.

Additionally, it is recommended that you prepare a schematic identifying locations of all fixtures along with either the Fixture ID Number or an index number to be matched to the Fixture ID Number in the Master Fixture ID spreadsheet. This will assist with avoiding future confusion about which fixture is which, as in six years' time, different personnel may be drawing the samples and may not interpret the written description of fixture locations the same way. This can often be accomplished by starting with the schematic you already have for fire escape and adding in the fixture locations and ID number or an index number to match to the ID number in the Master Fixture ID spreadsheet.

It is recommended that you review the Reimbursement Template before testing. This will help ensure that you know all the information required to complete the template.

Prerequisites

Prior to drawing samples, the following prerequisites must be met:

- 1) Samples must be drawn on a day following a day when class is in session in the building. This will preclude you from testing during summer, winter, and spring breaks.*
- 2) Flushing of systems prior to testing is NOT allowed.*
- 3) Samples must be drawn in the morning before any water in the building is used, after plumbing has been idle for 8 to 18 hours.

*ODE, in consultation with OHA, has temporarily suspended rules 1) and 2) above during the time that schools are closed due to COVID-19 to allow schools to continue to test according to their prescribed schedules. Rule 3) above remains in place, as per [OAR 333-061-0400](#) and guidance from the [federal 3Ts](#).

Draw Samples vs Flush Samples

All testing should start with 'Draw' samples.

Draw samples

- Taken **BEFORE ANY** water is run from the tap. By collecting the first water out of the tap, you are testing the water that has been sitting overnight in the fixture itself. Draw samples should detect elevated levels of lead that are caused by anything in the system, up to and including the fixture.

Flush samples

- It is not necessary to take Flush samples unless the Draw sample indicates high levels of lead.
- Flush samples are taken in the identical manner as Draw samples, **EXCEPT** that they are taken **AFTER the water has run for 30 seconds**. Flush samples are intended to detect elevated levels of lead caused by materials in the system before the water reaches the fixture.
- **Flush samples are to be used as a diagnostic tool only! A Flush sample below the action level, following a Draw sample above the action level is NOT an indication that lead levels are acceptable.** Remediation must still take place and the fixture cannot be returned to service until remediation has been completed and the fixture has passed a follow-up Draw test.
- If the Draw sample is high, but the Flush sample is acceptable, then the cause is likely the fixture.
- If the Draw sample and Flush sample test the same, then the problem is likely somewhere in the system besides the fixture.

Most commonly, elevated levels of lead can be corrected by replacing the fixture and the shut off valves beneath the fixture.

How to Test - Draw Samples

The collection process itself is fairly straight forward. You should plan your collection of samples in an organized manner to avoid missing fixtures. All samples must be collected in 250 milliliter bottles. These are generally supplied by the testing lab, but can be purchased online.

- 1) Fill out the label on the bottle (Client, Date/Time Collected, Sample ID Number as per protocol). You may want to fill out the labels ahead of time. Consider printing them out with a printer to make them easier to read. If you do so, be sure the ink is waterproof and that you match the correct label to each sample location.
- 2) **DO NOT TURN ON THE TAP YET. Some labs may put acid preservative in the bottles, so look at the label to see if it notes that acid is present. If the bottles contain acid, use safety glasses and point the bottle away from your face when filling.**
- 3) Remove the cap from the sample bottle and set it aside.
- 4) Hold the sample bottle under the tap.
- 5) NOW turn on the tap, slowly (to avoid splattering water or overfilling the bottle.)
- 6) Fill the sample bottle to the bottom of the neck. (Labs need space in the bottle to shake and mix the sample.)
- 7) Place the cap back on the sample bottle.
- 8) You are done sampling it. Move on to the next fixture.

A couple of important notes:

- Lead samples do NOT need to be iced.
- Labs will acidify/preserve the samples at the lab.

DO NOT:

- DO NOT rinse the bottle before collecting a sample.
- DO NOT partially fill the bottle. Fill to the bottom of the neck.
- DO NOT overflow the bottle. Fill to the bottom of the neck.

How to Test - Flush Samples

It is not necessary to take Flush samples unless the Draw sample indicates high levels of lead. Flush samples are taken in the identical manner that Draw samples are taken, **EXCEPT** that they are taken **AFTER the water has run for 30 seconds.**

Flush samples are to be used as a diagnostic tool only! A Flush sample below the action level, following a Draw sample above the action level is NOT an indication that lead levels are acceptable. Remediation must still take place and the fixture cannot be returned to service until remediation has been completed and the fixture has passed a follow-up Draw test.