

Lead & Copper Drinking Water Sample Sites - Community Public Water Systems

Sample tap selection guide: Samples must be collected from the kitchen or bathroom taps used for consumption in the residence specifically the cold-water faucet. It is important to check if the taps used for sampling are softened/filtered/treated, because home water treatments will affect lead and copper results.

Sample taps **should not include:**

- An outside spigot, faucet, utility sink, or a faucet that is rarely used.
- Faucets that are connected to point-of-use (POU) (tap filter or treatment device below the tap)
- Faucets that are connected to whole house point-of-entry treatment (POE) devices designed to remove contaminants. This includes water filters, water softeners, and others.

Home water softeners often bypass the kitchen cold water tap and thus this cold tap is unsoftened, if this is the case these sample taps are acceptable. Contact your district engineer if you have questions.

If sample taps connected to POU/POE devices are consistently found in your distribution, you must be able to confirm that all homes have POU/POE and softened/filtered cold water taps to justify collecting samples from those sites.

MDH Site Approval: Sites require approval prior to sampling. Submit any new site additions/site changes to MDH. Plumbing materials can change over time with construction; thus, you should also identify/document/confirm any changes and receive approval, so that you can maintain records that the site is still acceptable. Spreadsheet and directions available at [Lead and Copper Site Plan Updates](https://www.health.state.mn.us/communities/environment/water/lcsiteplan.html) (<https://www.health.state.mn.us/communities/environment/water/lcsiteplan.html>).

Distribution System Inventory Review: Rule requires water systems to sample at the highest risk/priority sample sites in their community for lead and copper. The service line inventory should be used to assist in appropriate site selection. To select a proper site, start by reviewing status 1 information below and select the sites from that status. If these sites are exhausted or do not exist, move on to the next status (status 2). Keep moving to the next status and tiers in the list below until the required number of sites for sampling have been selected.

Note: Status 1 sites are of highest priority, and Status 10 sites are of lowest priority.

Tier 1

- **Status 1:** Sample at single family homes served by a lead service line.
- **Status 2:** If Status 1 exhausted, sample at single family homes that include internal lead plumbing.
- **Status 3:** If Status 1-2 exhausted, sample at single family homes that include lead gooseneck (pigtail) connector.

COMMUNITY: LEAD & COPPER DRINKING WATER SAMPLE SITES

- **Status 4:** If Status 1-3 exhausted, sample at single family homes with plumbing installed between 1983 to June 1, 1985, with copper plumbing with lead solder present.

Sample Taps must meet all the following requirements to be approvable:

- Single family home at kitchen or bathroom taps only;
- **COLD** water tap; and
- No point of use or point of entry devices on selected sample tap (unsoftened and unfiltered tap).

Multifamily homes: When multi-family homes make up at least 20% of the structures served, the system may include multi-family buildings in its Tier 1 sample pool. Each multi-family building (apartment complex) would be considered one location for sampling. Do not sample multiple locations within one building.

Note: If lead service lines exist, then at least half of all your samples must come from these lead service line locations. MDH and EPA recommends all come from these if possible. MDH will be comparing sample site selection to materials inventory submittals as it relates to lead service lines to ensure proper sampling is occurring.

Tier 2

Status 5: If Status 1-4 exhausted, sample at multi-family homes or other buildings served by a lead service line.

Status 6: If Status 1-5 exhausted, sample at multi-family homes or other buildings that include internal lead plumbing.

Status 7: If Status 1-6 exhausted, sample at multi-family homes or other buildings that include lead gooseneck (pigtail) connector.

Status 8: If Status 1-7 exhausted, sample at multi-family homes or other buildings with plumbing installed between 1983 to June 1, 1985, with copper plumbing with lead solder present.

Sample Taps must meet all the following requirements to be approvable:

- Multi-family homes should be exhausted before other buildings with a lead service line are used;
- Kitchen or bathroom tap (other building sites may be allowed to sample at other normal consumption taps but kitchen or bathroom should still take priority in most cases, MDH approval required for use of other normal consumption taps);
- **COLD** water tap; and
- No point of use or point of entry devices on selected sample tap (unsoftened and unfiltered tap).

Note: If lead service lines exist, then at least half of all your samples must come from these lead service line locations. MDH and EPA recommends all come from these if possible. MDH will be

comparing sample site selection to materials inventory submittals as it relates to lead service lines to ensure proper sampling is occurring.

Tier 3

- **Status 9:** If Status 1-8 exhausted, Single-family homes that contain copper pipes with lead solder that were installed before 1983 may be sampled.

Sample Taps must meet all the following requirements to be approvable:

- Single family homes;
- **COLD** water tap;
- Kitchen or bathroom tap; and
- No point of use or point of entry devices on selected sample tap (unsoftened and unfiltered tap).

Tier 4

- **Status 10:** If all other sites exhausted, a system must complete its sample pool with other representative sites. A representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system. Common situations this applies is the entire community is newer or built post June 1, 1985. Or the entire community has sample taps that include a point of use or point of entry device such as a softener or filtration.

Sample Taps must meet all the following requirements to be approvable:

- Single family homes should be exhausted before multi-family homes used, and then multi-family homes exhausted before other buildings used;
- **COLD** water tap;
- Kitchen or bathroom tap (other building sites may be allowed to sample at other normal consumption taps but kitchen or bathroom should still take priority in most cases, MDH approval required for use of other normal consumption taps); and
- Sites without point of use or point of entry devices should be exhausted before using the sites with point of use or point of entry devices.

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